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SCRIBE (Summer Curriculum Revision Through Industrial and Business Experiences) Curriculum Guide Handbook, 1968.

Compton High School District, Calif.

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Identifiers-California, Compton, Elementary and Secondary Education Act Title III, SCRIBE, *Summer Curriculum Revision Through Industrial and

Phase I involved 5 weeks of entry level employment for academic teachers in selected establishments in order to acquaint them with an occupational field. They did the regular work of these positions for 6 hours each work day and then spent 2 hours interviewing other personnel to collect significant occupational information. Phase II involved 3 weeks in which academic teachers, occupational teachers, and occupational counselors modified or developed new courses in mathematics, English, Social Studies, and Science. This was done so the academic courses could support and reinforce occupational subject matter. A job analysis-subject matter area matrix was developed which allowed decisions concerning which courses should include particular competencies. Following this, subject area curriculum guides and suggested classroom activities were developed. Some of the curriculum guides are: (1) Voice Training, (2) Legible Writing, (3) Estimating, (4) Safety, (5) Quality Control, (6) Logic and Problem Solving, and (7) Career Development. Also included are the sequential procedure involved in this project, two related conference reports of "Total Community Occupational Education System, and general facility specifications. This was an Elementary and Secondary Education Act, Title III project. (EM)

SCRIBE.
Curriculum Guide Handbook,

1968.

English, Math, Science & Social Studies

Compton Union High School District, Calif.

VT007660

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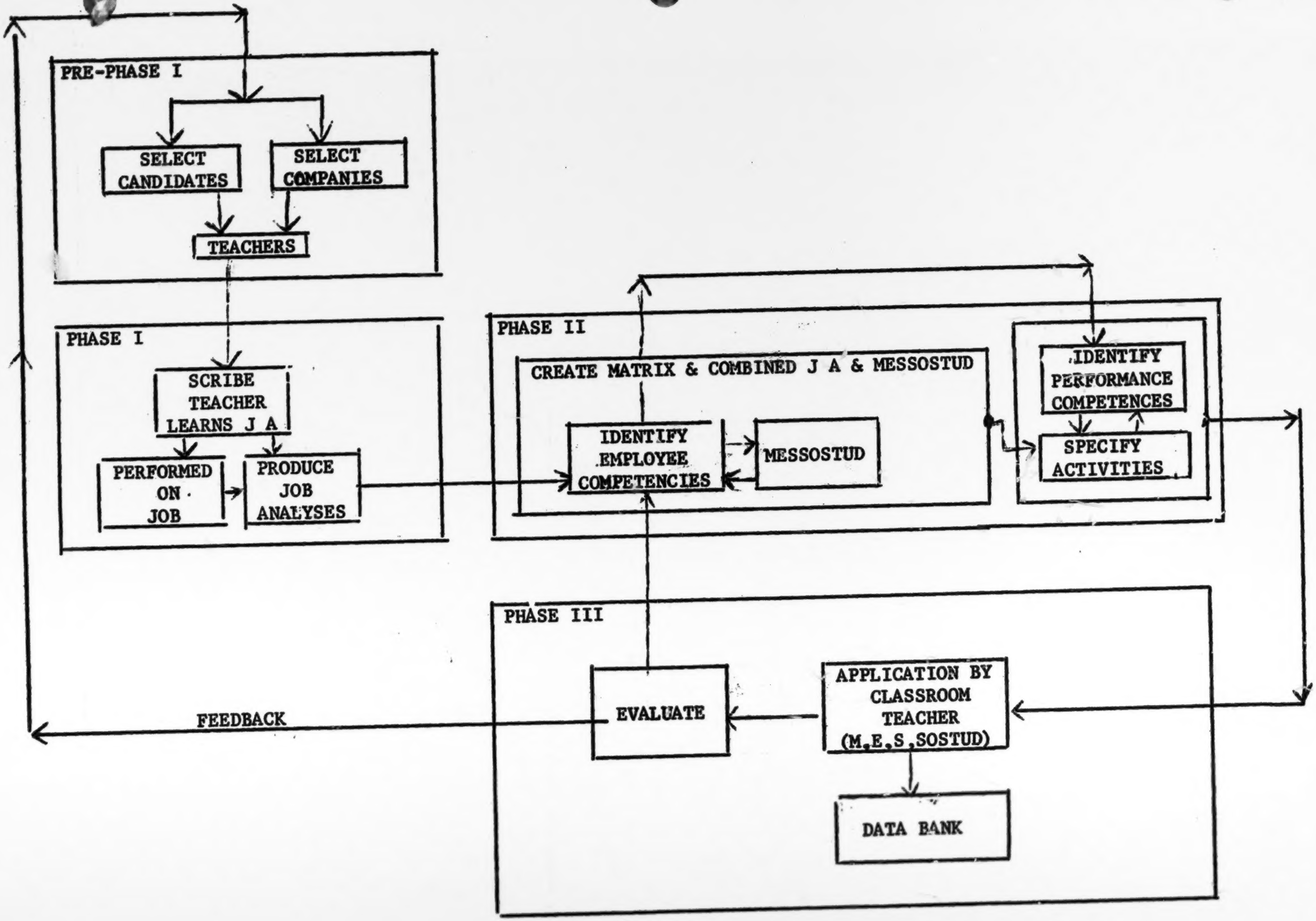
PRE-PHASE I
SELECT CANDIDATES
SELECT COMPANIES
TEACHERS
PHASE I
SCRIBE TEACHER LEARNS J A
PERFORMED ON JOB
PRODUCE JOB ANALYSES
PHASE II
CREATE MATRIX & COMBINED J A & MESSOSTUD
IDENTIFY EMPLOYEE COMPETENCIES
MESSOSTUD
IDENTIFY PERFORMANCE COMPETENCES
SPECIFY ACTIVITIES
PHASE III
EVALUATE
APPLICATION BY CLASSROOM TEACHER (M.E.S.SOSTUD)
DATA BANK
FEEDBACK

Summer Curriculum Revision through Industrial and Business Experiences

SUGGESTED

CURRICULUM GUIDES FOR PERFORMANCE COMPETENCIES

Prepared by SCRIBE Academic and Occupational Teachers

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September 1968

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SCRIBE CALENDAR 1968

JULY 1 - AUGUST 2	PHASE I
AUGUST 5	START PHASE II
AUGUST 6, 7, 8	T-COES CONFERENCE
AUGUST 9, 10, 11, 12	REVIEW JOB ANALYSIS
AUGUST 12, 13, 14	DERIVE CURRICULUM SUBJECT MATTER MATRIX
AUGUST 15, 19, 20, 21, 22	DEVELOP CURRICULUM GUIDES
	PREPARE FINAL REPORTS
SEPTEMBER 15 to JANUARY 30	PHASE III

PREFACE

It has become apparent that a major problem of many students attending high schools in the Compton Union High School District, is the matter of employment after leaving school. Our district has resolved to meet this problem in a forthright and realistic manner.

It is our aim to prepare the student for an entry level job while making it possible for all students to graduate from high school and to pursue post-high school careers as far as their abilities will allow them to do so in junior colleges, colleges, or universities. This would enable the student whose ambitions lay beyond high school training to be partly or wholly self-supporting citizens during this period of advanced learning.

OVERVIEW---The course of the academic teacher in dealing with academic subject matter as taught in most of the secondary schools of America has produced, at best, an individual well-suited to cope with, and to renew, the democratic processes of our society. Into the alembic of this process has been placed the educational instructional units which have produced dynamic societal leaders posessed of the powers of persuasive speech, creative thinking, and critical evaluation leading to social success.

Now, at present, in the context of the inadequacies and failures of the high school to train a larger proportion of graduates who can get and keep a job, ten teachers of the Compton Union High School District were delegated to perform the job of reconciling a point of view which clearly states that we must, of necessity, teach subject matter aimed at helping the student acquire and maintain a job with the traditional approach. This traditional approach in the view of the modernist, had the teacher guided by bell ringing, time blocks, four fixed walls, and credentialling structures related to the past. The teacher has, therefore, had to explore the hard realities of the work-a-day world and to abstract from on-the-job activities those performance competencies which would help the neglected disadvantaged student along the journey to success.

SCRIBE has been the instrumentality aimed at a solution to this problem. The teacher who is in the middle has had to become a self-regulating entity in this process.

THE THREE PHASES OF SCRIBE

from

SCRIBE "CLOSED LOOP" - COMPTON UNION HIGH SCHOOL DISTRICT
Division of Instructional Services - Compton, California

July 19, 1967
July 26, 1967, Vol. I & II

"For many years, Compton's three high schools have prepared students for a world which was academically oriented. Recently, the district has moved to revitalize these courses --- to occupationalize the curriculum and, at the same time, make it possible for each student to graduate and continue into junior college or college. In adding new courses in occupational fields, the district has selected these upon which to concentrate:

Automotive Technology
Construction Technology
Drafting
Electronics Technology
Food Services
Graphic Arts
Horticulture-Floriculture
Medical Services
Metals Technology

However, the district was faced with an age - old problem. The technical or shop and laboratory courses are taught by teachers who have had actual experience in their fields of specialty. However, the courses in English, mathematics, science and social studies are taught by academic teachers who, in most instances, have no awareness of these occupational fields. The district believes that academic subject matter should support and reinforce occupational subject matter. This means that the academic teachers should understand and appreciate the real-life requirements of business, industry and government as the ultimate employers of the students upon graduation from high school.

As the result of a systems analysis of the district, it was concluded that the most expedient method of exposing academic teachers to the real world of business, industry and government was to place them in that enviroment, as employees. Thus, they would live for a time under the conditions and controls of entry jobs which their students would be expected to find and hold.

The district described this plan to officials in the U.S. Office of Education in Washington, and a grant was made under ESEA, The Elementary and Secondary Education Act of 1965, a Federal Law concerned with innovation in public education.

The project calls for a three-phase effort. In Phase I, from July to August, teachers are employed in selected organizations and are assigned and supervised just as other employees. However, they engage in productive work six hours each day, as paid employees, and two hours each day, as school district employees. During the two hour period, they conduct interviews of supervisors, technical specialists, personnel managers, and whomever they believe could give them information of significance regarding their occupational field. They make job, task and human activities analyses of their job and the jobs performed by those employees with whom they have contact or observe at a distance. Each week they submit a brief diary to the project director, and retain a much more detailed record for use in Phase II.

During this five week period, teachers attempt to acquire a feeling for management attitudes, management criteria for employee performance, and what the first-line supervisor actually expects of a new employee in an entry position. This is in addition to their performing work and making job, task and human activities analyses.

At the end of five weeks, in August, Phase I is concluded and the teachers terminate their employment, receive exit interviews and separate from their organizations. For the next three weeks, 7/25 August, they spend full time in Phase II as salaried employees of the school district. Meeting at district offices, they are joined by Occupational Teachers and Occupational Counselors and begin to convert their experiences into modified or new courses in math, English and science. Phase II is a conversion effort to improve conventional academic courses so they will better support the occupational courses.

The regular fall term begins on 11 September and the SCRIBE teachers should be ready to transfer the modified or new instruction to their classes. During the semester, an evaluation will be conducted to see to what extent SCRIBE has influenced regular academic offerings.

ANALOG OF SCRIBE PHASES

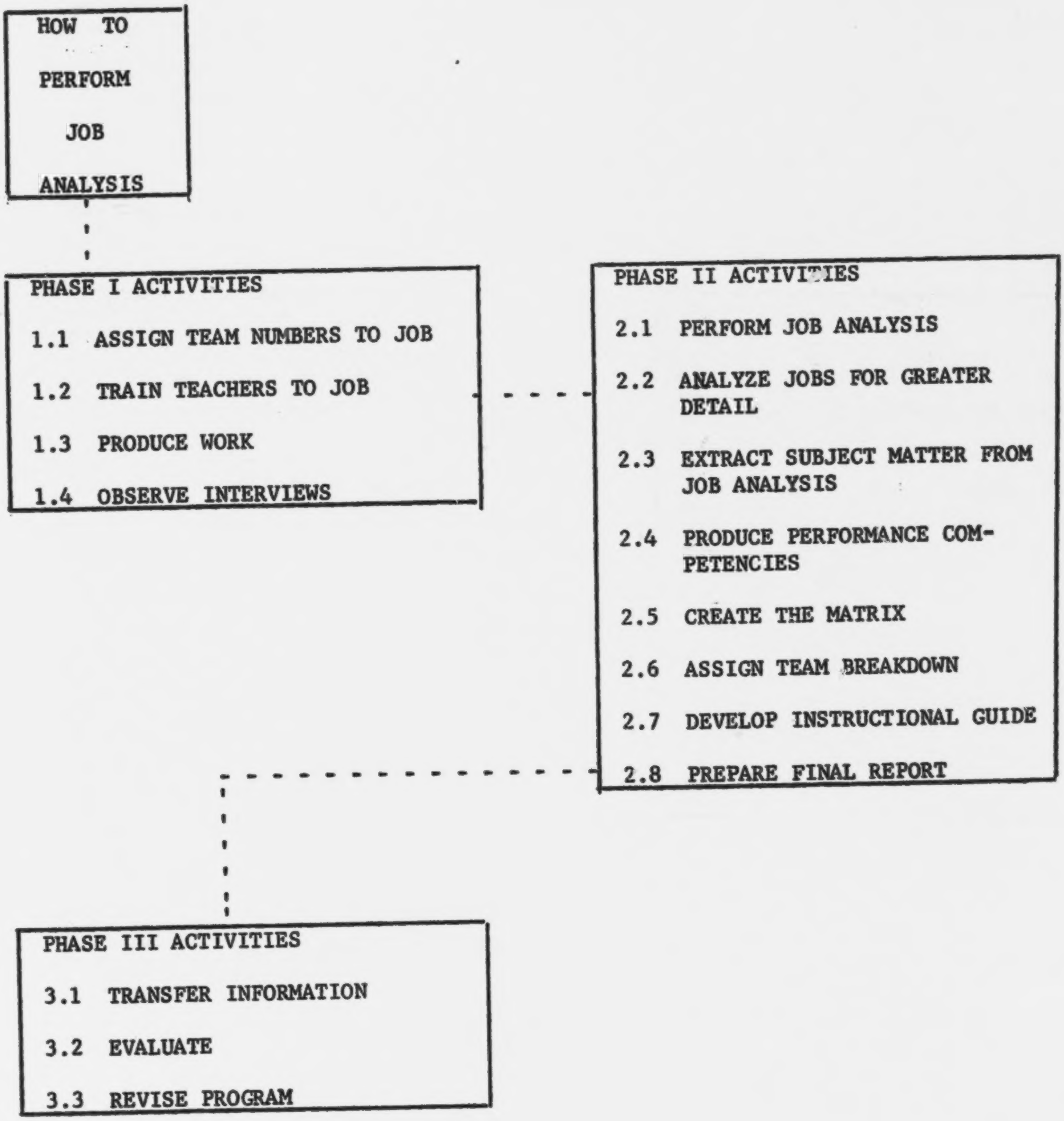
HOW TO PERFORM JOB ANALYSIS
PHASE I ACTIVITIES
1.1 ASSIGN TEAM NUMBERS TO JOB
1.2 TRAIN TEACHERS TO JOB
1.3 PRODUCE WORK
1.4 OBSERVE INTERVIEWS
PHASE II ACTIVITIES
2.1 PERFORM JOB ANALYSIS
2.2 ANALYZE JOBS FOR GREATER DETAIL
2.3 EXTRACT SUBJECT MATTER FROM JOB ANALYSIS
2.4 PRODUCE PERFORMANCE COMPETENCIES
2.5 CREATE THE MATRIX
2.6 ASSIGN TEAM BREAKDOWN
2.7 DEVELOP INSTRUCTIONAL GUIDE
2.8 PREPARE FINAL REPORT
PHASE III ACTIVITIES
3.1 TRANSFER INFORMATION
3.2 EVALUATE
3.3 REVISE PROGRAM

FIGURE 1

THE JOB ANALYSIS-SUBJECT AREA MATRIX

This Job Analysis-Subject Area Matrix is a product of an occupational analysis approach. The SCRIBE members of Phase I made many different job analyses covering a wide range of jobs, most of them being on the job-entry level. The Phase II teams scrutinized the job analysis and determined common knowledge and skill requirements that could be integrated in the traditionally taught subjects so that they relate as much as possible to the career development program.

Column one through five on the following page indicates the five job analysis that were made by the five teachers on the job. The center items indicate the performance competency which was observed as needed on the job. For example, Item 1.0, Voice Training, is a necessary competency in four of the five analyses made. In the subject columns which represent existing subject areas in the high school, English and social studies were checked as the appropriate training.

Each of the fifteen performance competencies listed in the Matrix are further developed (in the subject area curriculum guides) into suggested classroom activities.

JOB ANALYSIS-SUBJECT AREA MATRIX

SCRIBE INPUT OUTPUT

JOB ANALYSES STUDENTS PERFORMANCE COMPETENCIES SUBJECTS

TEACHERS---

1	2	3	4	5			M	E	S	Soc. St.
SECORD	ROSENTHAL	LEWIS	VANDERHEYDEN	STEELE			MATHEMATICS	ENGLISH	SCIENCE	SOCIAL STUDIES
X	X	X		X	1.0	VOICE TRAINING		X		X
X	X	X	X	X	2.0	CRITICAL OBSERVATION	X	X	X	X
					2.1	SIGNATURE COMPARISON				
					2.2	OBJECTIVE/SUBJECTIVE CRITERIA				
X	X	X	X	X	3.0	ADD/SUBTRACT COMBINATIONS (SPEED AND STRESS)	X		X	
		X			3.1	UNDER CONDITIONS REQUIRING SPEED	X			
		X			3.2	UNDER CONDITIONS INFUSING NOISE				X
		X			3.3	UNDER CONDITIONS INFUSING STRESS			X	
X	X	X	X	X	4.0	LEGIBLE WRITING	X	X	X	X
X	X	X	X	X	5.0	SPEED READING	X	X	X	X
X	X	X	X	X	6.0	BUDGETING OF TIME	X	X	X	X
					6.1	DRAWING A TIME SCHEDULE		X		
					6.1.1	HOURS				
					6.1.2	DAYS				
X	X			X	7.0	ESTIMATING	X	X	X	X
X	X	X	X	X	8.0	SAFETY			X	X
X	X	X	X	X	9.0	STANDARD SYMBOLS	X		X	
X	X	X	X	X	10.0	BUILDING A CAREER VOCABULARY	X	X	X	X
X	X	X	X	X	11.0	QUALITY CONTROL				
					11.1	PEOPLE SYSTEMS				
					11.2	MACHINE SYSTEMS				
X	X			X	12.0	LOGIC (PROBLEM SOLVING)		X		X
					12.1	LINEAR AND HALF-SPLIT				
					12.2	VERIFYING				
X	X	X		X	13.0	TECHNICAL TELEPHONE COMMUNICATIONS		X		
					14.0	CAREER DEVELOPMENT				

14.1 SOCIO-CAREER DEVELOPMENT
    14.1.1 WALK AND GESTURES
    14.1.2 DRESS
    14.1.3 SPEECH
        14.1.3.1 INFLECTION
    14.1.4 WRITING
14.2 SKILL - CAREER
    14.2.1 DEMONSTRATION
    14.2.2 MANIPULATION
14.3 PERSONALITY
    14.3.1 SELF-IMAGE
    14.3.2 IMAGE PROJECTION

A COMBINED JOB AND SUBJECT AREA ANALYSIS

JOB TITLE: Bank Teller

COMPANY: Bank of America

TEACHER: Miss Margaret P. Lewis

SCHOOL: Dominguez Senior High School

JOB TASK: General
1.0 Cashing checks
2.0 Deposit with cash savings or checking
3.0 Interbranch transactions
4.0 Operations Office

DETAILED JOB ANALYSIS: BANK TEL

TASKS	TASKS RELATION-SHIP (1)	ACTIONS/STEPS (1)	ACTIONS/ STEPS (1) RELATION-SHIP	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Cashing Checks	D	1.1 Greet Customer (1.0) (3.0)	I	7	1.1 Check signature card or ⑤
		1.2 Establish I.D.	D	10	1.2 Ask for I.D. either: BANKAMERICARD COURTESY CARD DRIVER'S LICENSE WELL KNOWN CREDIT CARD EMPLOYEE BADGE
		1.3 Record I.D. on back of check ⑦	D	10	
		1.4 If over unit, have okayed	D	10	
		1.5 Count out cash when removing same from cash box ④	I	7	
		1.6 Count cash in from the customer ④	D	10	
		1.7 Stamp transactions ⑥	D	10	
		1.8 Thank customer by name ①	I	7	
		1.9 Place stamped check in cash box ①	D	10	

FIGURE 2

DETAILED SCHOOL PERFORMANCE ACTIVITIES (Continues on the following page)

ILED JOB ANALYSIS: BANK TELLER

L IENCY	INFORMATION FACTS/POINTS	FACTS/ POINTS RELATION-SHIP	SUBJECT AREA SYNTHESIS			
			ENGLISH	MATH	SCIENCE	SOCIAL STUDIES
	1.1 Check signature card or (5) 1.2 Ask for I.D. either: BANKAMERICARD COURTESY CARD DRIVER'S LICENSE WELL KNOWN CREDIT CARD EMPLOYEE BADGE	D D	1.0 Voice	5.0 Graphic Comparison		3.0 Improvisation
0					2.0 Critical Observation	
0 0			7.0 Legible writing		2.0 Critical Observation	
0				4.0 Combinations Add/Subtract		9.0 Role Playing
0						8.0 Spee Reading
7			10.0 Objective Description		6.0 Manual Dexterity	
10						

FIGURE 2

page)

DETAILED SCHOOL PERFORMANCE ACTIVITIES

1.0 Voice Training
    1.1 Projection
    1.2 Tone
    1.3 Coaching

2.0 Critical Observation
    (Purposeful Perception)
    2.1 Observing a person for
        purposes of description.
        2.1.1 Physical Characteristics:
            Dress
            Gestures
            Speech
            Height
            Etc.
    2.2 Recalling facts about a person.

3.0 Improvisation
    3.1 Extemporaneous speech
    3.2 Collecting data
    3.3 Logical outlining

4.0 Combinations of Additio
    and Subtraction.
    4.1 Under conditions of
    4.2 Under conditions r

5.0 Graphic Comparison
    5.1 Signatures
    5.2 Column of figures

6.0 Manual Dexterity
    6.1 Procedural manipul
    6.2 Item arrangement

7.0 Legible Writing
    7.1 Cursive
    7.2 Lettering

8.0 Speed Reading
    8.1 Scanning
    8.2 Comprehension

Combinations of Addition and Subtraction.
4.1 Under conditions of stress.
4.2 Under conditions requiring speed.

Graphic Comparison
5.1 Signatures
5.2 Column of figures

Manual Dexterity
6.1 Procedural manipulation
6.2 Item arrangement

Legible Writing
7.1 Cursive
7.2 Lettering

Speed Reading
8.1 Scanning
8.2 Comprehension

9.0 Role Playing
  9.1 Stress factors
  9.2 Speed factors
  9.3 Communications
  9.4 Evaluation

10.0 Objective Description
  10.1 Written narrative
  10.2 Written description

TASKS	TASKS RELATIONSHIP (1)	ACTIONS/STEPS (1)	ACTIONS/STEPS (1) RELATIONSHIP	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP
2.0 Deposit with cash savings or checking	D	1. Greet customer by name.	I	7		
		2. Check account number.	D	10		
		3. Count cash.	D	10		
		4. Record cash on deposit slip.	D	10		
		5. Record cash on cash received slips.	D	10		
		6. Tear out cash received slip.	D	10		
		7. Encode account number if necessary.	D	10		
		8. Stamp transaction with appropriate stamp.	D	10		
		9. Deposit money in cash box.	D	10		
		10. Stamp depositor's book.	I	7		
		11. Thank customer by name.	I	7		
		12. Place transaction for NCR Operator in tray of cash box.	D	10		

TASKS	TASKS(1) RELATIONSHIP DIG	ACTIONS/STEPS (1)	ACTIONS/ STEPS(1) RELATIONSHIP DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
3.0 Inter-Branch Transactions 1. Less Cash 2. Savings Withdrawal 3. Cashing personal checks over $25.00	D	1. Greet Customer	I	7	
		2. Establish type of transaction	I	7	
		3.* Check account number and amount of transaction.	D	10	3.* 1. - If over $25.00
		4. Establish I.D.	D	10	
		5. Seek Approval	D	10	
		6.* Call other bank	D	10	6.* 1. Make sure customer has enough money in account to cover transaction
		7. Get approval	D	10	
		8. Record on Cash Received Slip	D	10	
		9. Stamp transaction	D	10	
		10. Count out money	D	10	
		11. Encode check, withdrawl slip	D	10	
		12. Place transaction in tray for NCR	D	10	

TASKS	TASKS RELATIONSHIP (1)	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP
4.0 Operations Office	D	1. Assign jobs.	D	10	A. Knowledge of:	
		2. Oversee jobs.	D	10	1. Commerical Teller	D-I
		3. Review work of staff.	D	10	2. Vault Tellers	D
		4. Okay deposits over $1,000			3. Bookkeeper	D
		Okay less cash over $250.00			4. Statement Window	D
		Okay cashing checks over $250.00			5. Accounts	D
		Okay I.D.	D	10	6. Phone Operator for inter-branch calls	D

JOB TITLE: Toll Card Collection Clerk

COMPANY: Pacific Telephone and Telegraph Company

TEACHER: Mr. John R. Secord

SCHOOL: Compton Senior High School

JOB TASKS:
1.0 Scan O.M.S. cards to discover why I.B.M. 519 rejected them.
2.0 Complete any missing information.
3.0 Supply missing area codes.
4.0 Separate into stacks.
5.0 Complete tally sheets.
6.0 Verify material codes on A 709's.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/ STEPS (1) RELATIONSHIP DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/ POINTS RELATIONSHIP DIG
1.0 Scan the O,M.S. Cards to discover why the I.B.M. 519 rejected them.	D	1. Check the area code, prefix, and number on both the "to" and the "from" portion correlating the sensitized marking with the punched holes	D	10		D
		2. Check the type of call column for unpunched or contradictory information. (field 28)	D	10	a. Know the meaning and function of types (NCPD, 3rd, NO,CRCD) (Col yes, SPCOL,) (CNPD, COL TO CN.) b. Know the general operation in receiving a call. c. Know the general pro cedure for billing a call.	D
		3. Check the class of call. (field 29)	D	10	a. Understand "person to person","station to station". (PP, SS)	D

TASKS	TASKS RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/ STEPS (1) RELATIONSHIP	LEVEL OF PROFICIENCY	I INFORMATION FACTS/POINTS	FACTS/ POINTS RELATIONSHIP DIG
		4. Check the hour column (field 51)	D	10	a. Correlate when necessary with the clock on back. (Must read hours, minutes and seconds on clock.)	D
		5. Check the AM/PM (field 52)	D	10	a. Correlate when necessary with the clock on back. (Must read and understand AM/PM)	
		6. Check that contradictory information is neither indicated or punched.	~~D~~	10	a. Example: NCPD with CNPD b. Example: 3rd. No with CRCO	
2.0 Complete any missing information that can be learned or deducted from facts listed on the card		1. Complete the yes if COL is marked only. 2. Mark NCPD if no other collection is indicated.	D			

TASKS	TASK RELATIONSHIP	ACTIONS/STEPS (1)	ACTIONS/ STEPS (1) RELATIONSHIP DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
3.0 Supply missing area codes on "To Other" cards.	D	1. Mark with sensitized pencil proper area code number.	D		a. Mexico 512 (except Ensenada 903)
4.0 Separate into four separate stacks	D	1. Traffic 2. "To Other" 3. Omissions 4. Unpunched	D		a. For cards with insufficient information. b. Cards marked in OTH block. c. Cards with marks left off.
5.0 Complete tally sheet	D	1. Fill in all appropriate information	D		a. Cards left unpunched due to marks being light wild or short.

JOB TITLE: Materials Clerk

JOB TASKS: 1.0 Code a 708A's
2.0 Verify Material Codes on a 708A's
3.0 Edit a 708A's

TASKS	TASK RELATIONSHIP DIG (1)	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1)	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Code a 708A's		1. Circle all the numbers from 14 to 18 in the quanity column. (Example: 1 2 3)			
		2. Add all the quantities circled and find the differences in the un-circled.			
		3. List by code all the various types of missings, found items.			a. 7=7081, 8=8081, 14=1481, etc.
		4. Initial next to the space marked "coded"			
2.0 Verify material codes on A709's		1. Look up the code number on the material sheet in the code manual.	D	10	a. A thorough knowledge of the materials and how they go together is required for this job.
		2. Compare the description in the manual with that listed in the manual.	D	10	a. Ability to read and interpret the engineering drawings and symbols is required

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS (1) RELATIONSHIP	INFORMATION FACTS/POINTS
3.0 Edit a 708A's		1. See that the service order number corresponds to the number listed on the master sheet. 2. Check the front of the service order for equipment in use, left in, or withdrawn. This information must conform to the master sheet. 3. Check the box which indicates the number of pieces of equipment left in, removed, or reconnected and any other noted information on the back. 4. Reconcile total amounts. 5. Place check ( ) on master sheet if all is verified correct. 6. Place in stack to be stapled with proper tag.		a. IFR= instrument b. EXT= extension c. PRIN= princess

Motorized Massenger

JOB TASK: 1.0 Operate mail inserting machine.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP DIG
Operate the mail inserting machine	D	1. Load various hoppers.	D	6	a. Return envelope b. Telenews c. Bills d. Outer envelope	
		2. Adjust "sensing" machanism on each hopper.	D	8	a. Each hopper has the ability to stop the entire machine if it should jam and a light is activated, indicating which hopper has trouble. Adjustment is made by "feel" and experience.	D
		3. Hand crank to insure proper operation.	D	5	a. Check that no lights are activated.	
		4. Check postage meter.	D	8	a. Amount to be stamped. b. Date c. Advertizing stamp d. Ink level e. Total amount of money left on the meter.	
		5. Check the entire machine on "one cycle".	I	5	a. "One cycle" is a special button that powers all the	
		6. Stack sealed envelopes in trays	I	4		

Key Punch Operator

JOB TASKS: 1.0 Punch
2 0 Verify

TASKS	TASK RELATIONSHIP	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/ RELATI DI
Punch		1. Choose proper unpunched cards from supply stacks correlate job with cards.	D	7	a. One must know which cards are for various jobs, i.e., part payment credit cards, remake of damaged cards, etc.	
		2. Insert the cards in the hopper.	D	5		
		3. Select or make out the proper "program".	D	8-9	a. One must have knowledge of the particular job to done. The program automatically punches or spaces to given fields (1-80).	
		4. Insert the program drum into the machine.	D	6-9		
		5. Hit all the right keys.	D	10	a. The keyboard is like a typewriter except there is no punctuation and the numbers are arranged to be struck with the right hand.	
Verify	D	1. Check card form.	D	10		
		2. Punch,				
		3. Monitor Machine Test.	D	10		
		4. Correct.	D	10		

Machine Room Operator

JOB TASKS:
1.0 Sort media into bins
2.0 Operate bursting machine
3.0 Run decolating machine

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Sort Media into bins.	D	1. Check prefix on telephone number.		10	
	D	2. Refer to manual to find which business office the prefix is assigned.		10	
	D.	3. Place media into proper bin		10	
2.0 Operate bursting machine.		1. Tear wide strip off the edge of the paper.	D		
		2. Insert paper in the machine - large numbers first	D		
		3. Set side pointer at mark.			
		4. Load paper through rollers.			
		5. Turn on switch.			
		6. Stack papers after they have come down the stacker.			
3.0 Run decolating machine.	D	1. Place stack of media into center hopper.	D	4	
		2. Thread original copy to the left over roller along with carbon.	D	4	
		3. Thread the copy to the right.	D	4	

TASKS	TASK RELATIONSHIP	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
3.0 Run decolating machine.		4. Roll the carbon around reel.	D	4	
		5. Turn speed indicator to "1", to check if the paper is folding correctly. Then turn to high speed.	D	5	
		6. Remove "decolated" stacks and tag properly.	D	10	

JOB TITLE: Station Installer

COMPANY: Pacific Telephone and Telegraph Company

TEACHER: Mr. Gregory A. Rosenthal

SCHOOL: Dominguez Senior High School

JOB TASKS: Install Telephones

TASKS	TASK RELATIONSHIP (1)	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Installing telephones.		1. Locate inside connection box.		10	
		2. Remove connection box.		10	
		3. Connect ground and battery wires.		10	
		4. Call plant service center and request them to call back in order to complete test of equipment.		10	
		5. Replace cover on connection.		10	

Frameman

JOB TASKS: 1.0 Connecting telephone lines to frames.
2.0 Disconnecting telephone lines from frames.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Connecting telephone lines to frames.		1. Read service order to identify customers line.		10	
		2. Find appropriate frame and connecting block.		10	
		3. String wire frame to appropriate block.		10	
		4. Solder connections.		10	
		5. Make notation in service order that frame work is completed.		10	
2.0 Disconnecting telephone lines from frame.		1. Read service order to identify customers line.			a. Frame connects telephone subscriber's phone to plant switc ing equipment.
		2. Go to appropriate frame and connection block.		10	a. Each frame and block has stenciled identi fication numbers.
		3. Cut Wire.		8	
		4. Clean connection.		8	
		5. Pull wire off of frame.		8	
		6. Make notation on service order that frame work is completed.		10	

Lineman

JOB TASKS: 1.0 Climbing a pole without steps.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Climb a slick stick poll without steps.		1. Insert spikes (attached to instep) in poll at 30 degree angle.		10	
		2. Take 18 inch steps (one foot at a time).		10	
		3. Fasten safety belt when reaching level of working area.		10	

JOB TITLE: Director of Procurement

COMPANY: Scientific Data Systems

TEACHER: Mr. Lawrence J. Steele

SCHOOL: Domingues Senior High School

JOB TASKS:
1.0 Knowledge of accounting.
2.0 Assist buyers.
3.0 Arrange high-level meetings.
4.0 Keeps control of other departments.
5.0 Reading of blue prints.
6.0 Knowledge of temperature of solder.
7.0 Must keep records of each buyers activities to prevent slipups.
8.0 Make out yearly reports.
9.0 Vast knowledge of psychology.
10.0 General ability to run a large department.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Knowledge of accounting.	D	1. Receiving 2. Rejections 3. Payment 4. Work flow 5. Collection			
2.0 Assist buyers.	D	1. In problems with fellow directors.			
3.0 Arrange high-level meetings.	D	1. For better understanding of other departments.			
4.0 Keeps control of other departments.		1. By demanding more than one bid per P.O. (3 bids are basic).			
5.0 Knowledge of Blue Prints.					
6.0 Knowledge of temperture of solder.	D	1. Circuits and other materials.			
7.0 Must keep records of each buyers activities to prevent slip-ups.		1. To avoid financial disaster.			
8.0 Make out yearly reports.	D	1. Accumulate information 2. Dictate report to secretary.			
9.0 Vast knowledge of psychology.	D	1. Selling 2. Buying 3. Employee relations			
10.0 General ability to [illegible]n a large de[illegible]tment.	D				

Buyer

JOB TASKS: 1.0 Receive request for material
2.0 Decides which binder showed recieve order.
3.0 Write up P.O.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Receive request for material.	D	1. From either mail or phone request.	D	10	a. Accumulate and correct information.
2.0 Decides which binder showed receive order.	D	1. Many decisions as to price, number and other areas or to who get order.	D	10	a. Much experience demanded to property operator here.
3.0	D	1. Hand write out P.O. for typist.	D	10	a. All information just copied by typist, therefore, needs to be complete and correct.

File Clerk, Class I

JOB TASKS:
1.0 Tear down of typed Purchase Order.
2.0 Files hard copy of Purchase Order.
3.0 Files buyer's copies.

TASKS	TASK RELATIONSHIP DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
1.0 Tear down of typed P.O.	D	1. P.O.'s are received and cross-logged	D	10	a. P.O.'s are hand-logged in 8½ x 11 binder in two ways: ---first by vendor ---second by requester
		2. There are eight different copies. One original and seven carbons. Each copy goes to a different place.	D	10	
		3. Original and the acceptance copies are mailed to vendor.	D	10	a. Folded and properly placed in window envelopes. a.
		4. Accounts payable gets a carbon.			
		5. Purchasing gets a carbon.			
		6. Receiving Department.			
		7. Buyer's files.			
		8. Requester of materials.			
		9. Hard copy to follow up	D	10	#'s 4-9 are all mailed to each different area via company mail.

TASKS	TASKS RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
2.0 Filing hard copy of P.O.	D	1. Goes to the "Tub" in the expediting area.			
		2. Arranges all P.O.'s in numerical order.	D	10	a. Tub is in numerical order.
		3. Files each new P.O. in tub.			
3.0 Files buyers copies.	D	1. These files are alphabetical, any vendor.			
		2. Arrange P.O.'s alphabetically in order.	D	10	
		3. Files.	D	10	a. Wrong place is P.O. equals in last time and information.

Expediter-Clerk

JOB TASKS:
1.0 Pulls P.O.'s from tube for daily follow-up.
2.0 Types weekly report of Blanket Orders.
3.0 Files P.O.'s after follow-up has been completed.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVE OF PROFICI
1.0 Pulls P.O.'s from tube for daily follow-up.	D	1. Arranges all purchase department copies in numerical order.	D	10
		2. Pulls follow-up copy and matches above copy.	D	10
		3. Places all copies on Chief Expediteres' desk	I	5
		4. If match not possible then check closed file.	D	10
2.0 Types weekly report of Blanket Orders.	D	1. Buyers give clerks all information.	D	
		2. She adds or substract totals from old report for weekly figures.	D	1
		3. After report is typed copies are made on a Xerox machine.	D	2
3.0 Files P.O.'s after follow-up has been completed.		1. Average P.O. in numerical order.	D	1
		2. File P.O.'s.		
		3. Place purchasing carbons in date file.	D	

	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP DIG
	D	10	a. All P.O.'s in tube and in numerical order.	
y.	D	10	a. Copies must match.	
sk	I	5		
e. e.	D	10	a. If P.O. is in the closed file, destroy purchasing carbon.if	
ll	D			
t rt	D	10	a. Wrong math function, and it could cost thousands of dollars.	
d	D	2		
ri-	D	10	a. Tub in numerical order.	
r-	D	10	a. These copies are dated by buyer or chief expediter for further follow-up.	

Clerk Typist-Class I

JOB TASKS: 1.0 Type Purchase Orders.

2.0 Answer the telephone for buyer.

3.0 File correspondences for buyer.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENC DIG
1.0 Type Purchase Orders.	D	1. Take hand-written copy of P.O. with information from buyer and type P.O.	D	10
2.0 Answer the telephone for buyer.	D	1. SDS has a certain phone procedure to follow.	D	10
		2. Channels calls to buyers.		
		3. Takes messages for buyers.	I	5
3.0 Files correspondences for buyer.	D	1. Correspondences are filed by vendor's name, alphabetically.	D	10

TIONS/STEPS LATIONSHIP (1) DIG	LEVEL OF PROFICIENCY DIG	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP DIG
D	10	a. Must be able to type 40-50 words per minute. b. Also should be able to type numbers quickly.	D
D	10	a. To add uniformity to all departments.	
I	5	a. Anyone can take messages for the buyer.	
D	10		

Industrial Relations Representative Assistant

JOB TASKS:
1.0 Signs in new hires.
2.0 Screens applicants for interviews.
3.0 Administers Tests
4.0 Places ads to papers and radio stations for "vital" job openings.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	P
1.0 Signs in new hires	D	1. Types out first time card.	D	
		2. Types out with-holding forms.	D	
		3. Tells about insurance plan.	I	
		4. Tells about profit sharing plan.	I	
2.0 Screens applicants for interviews.	D	1. Has applicant fill out application.	D	
		2. Reviews job opening list.	D	
		3. If applicant has necessary experience for listed job, this should be told to the interviewer of applicant.	D	
		4. Takes applicant back to interviewer.	I	

	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS
card.	D	10	a. Needs correct information here.
ng	D	10	a. Needs number of exemptions for payroll.
e	I	5	
har-	I	5	a. This information is given after probation period is over. (Probation - 6 months.)
ut	D	2	
list.	D	10	
essary d told f	D	10	
to	I	5	

2

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LE O PROF
3.0 Administers Tests	D	1. Takes applicant to testing area.	I	5
		2. Administers proper test: a. Typing b. Dexterity c. Shorthand d. Programming e. Wonslerlic (I.Q.)	D	1
4.0 Places ads to papers and radio stations for "vital" job openings.	D	1. Calls correct office and dictates ad over the telephone.	I	1

ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP DIG
I	5		
D	10	a. Need to be familiar with all tests.	D
I	10	a. Need to know how to set up ads. Good telephone techniques.	

Office Manager

JOB TASKS:

1.0 General supervision of all office girls.
2.0 Handles Blanket Purchase Orders.
3.0 Handles all C.O.D.
4.0 All Office or Department reports.
5.0 General reprimand of office girls.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	PROF
1.0 General supervision of all office girls.	D	1. Distribution of work.	D	
		2. Grade reviews.	D	
		3. Interviews new applicants.	D	
		4. Charts and logs work.	D	
		5. Responsible for overall accuracy.	D	
2.0 Handles Blanket Purchase Orders.	D	1. Requester wants blanket P.O. for material used all year.		
		2. Assigns or order for buyer.	D	
		3. Keeps all records on blanket P.O.	D	
3.0 Handles all C.O.D.	D	1. Pays postman for charges.		
4.0 All office or department reports.	D	1. Gather information.	D	
		2. Sifts information.	D	
		3. Catalouges information.	D	
		4. Has it typed.	I	
5.0 General reprimand of office girls.	D	1. Has private conference with workers.		
		2. Writes report for personal file.		

	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/ POINTS RELATION- SHIP DIG
	D	10		
	D	8	a. Director of procurement also reviews.	
nts.	D	8		
	D	8		
1	D	10	a. Answerable to Director for accuracy.	D
t .				
all				
buye		D	10	
plan-				
	D	10		
ges.				
	D	10		
	D	10		
n.	D	10		
	I	5		
with				
onal				

Expediter - Purchasing

JOB TASKS:

1.0 Receives and sort Purchase Orders (P.O.S.).
2.0 Check daily purchase orders against "Receiving Dock Log" for prevision days receivers.
3.0 Phone Vendors.
4.0 Fill out form: "report of purchase follow-up".
5.0 Close a Purchase Order.

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEV OF PROFICI
1.0 Receive and sort P.O. (P.O.S.)	D	1. Sign for P.O.S. from Chief Expediter.	G	10
		2. Arrange P.O.S. in alphabetical order.	D	10
2.0 Check daily P.O. against "Receiving Dock Log" for prevision day receivers.	D	1. Take Log and match P.O. number and vendor name.	D	10
		2. If P.O. appears on Log close out the P.O.	D	7
3.0 Phone Vendors		3. If P.O. is not on Log, then a telephone call must be made to the vendor.	D	10
		4. Dial number.	D	10
		5. Ask for follow-up Dept.	D	10
		6. Give P.O.#.	D	10
4.0 Fill out form "report of purchase follow up".	D	1. Give date order placed.	D	10
		2. Give quanity.	D	10
		3. Give description of material.	D	10
		4. Other information requested by vendor.	D	10
		5. Identify by P.O.#.	D	10

	ACTIONS/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/ POINTS RELATIONSHIP DIG
	G	10	a. Be sure you have all P.O.S. signed.	D
.	D	10	a. Should know alphabets.	D
O, e.	D	10	a. If an arrived order is over-looked there will be duplication and needless work.	D
g	D	7	a. Which means material was delivered.	
s, l	D	10	a. To seek information as to: 1. When shipped. 2. How shipped.	D
	D	10		
pt.	D	10	b. All local calls are direct-dailed. (Within California)	
	D	10		
ed.	D	10	c. Wrong number cost money.	D
	D	10		
ma-	D	10	a. Any incorrect information here will lead to wrong information on material	D
a-	D	10		
	D	10		

TASKS	TASK RELATIONSHIP (1) DIG	ACTIONS/STEPS (1)	ACTION/STEPS RELATIONSHIP (1) DIG	PR
		6. Address to requester of material.	D	
		7. Request delivery date to vendor.	D	
		8. Write delivery date and shipping date in "report"	D	
5.0 Close a P.O.	D	1. If material has been found on stock log, then P.O. is closed out.	D	
		2. Pull P.O. from filing tub.	D	
		3. Stamp "closed order" across front of P.O. with furnished stamp.	D	
		4. Place P.O. in filing box for filing in closed files.	I	

	ACTION/STEPS RELATIONSHIP (1) DIG	LEVEL OF PROFICIENCY	INFORMATION FACTS/POINTS	FACTS/POINTS RELATIONSHIP DIG
ter of	D	10	a. This person is very interested in the disposition of needed material.	D
date to	D	10		D
te and "report"	D	10	a. Reason for job is to find out when material will be delivered. b. His name is generally found at the bottom of P.O.	D
een g, then t.	D			
ling	D	10	a. Pull correct P.O. b. Filed numerically. c. Needs to have numerical recall at command.	
ler" .O. amp.	D	5		
ing box sed	I	5		

CURRICULUM GUIDES FOR PERFORMANCE COMPETENCIES

PERFORMANCE COMPETENCIES

COMPETENCE: 1.0 Voice Training

OBJECTIVES: Teaching each student to use his voice with maximum effectiveness.

BACKGROUND INFORMATION: It was found that oral communication was of great importance in nearly every job in business and industry observed by SCRIBE; thus, the cultivation of a good conversational style is essential in vocational development to prepare the student for adequate customer-clerk, customer-craftsman, and supervisor-employee relationship.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: English

1. Using tape recorder to diagnose speech habits.
2. Use of voice and language in various situations.
   - 2.1 Job interviews.
   - 2.2 Demonstration of job skills.
   - 2.3 Role-playing (customer and clerk, employee and supervisor, etc.)
3. Use of the voice inflection to set mood and tone in relations with others.
   - 3.1 Use of tape recorder to demonstrate attitudes and interpretation of attitudes.

ACTIVITIES

Instructional Analysis of Performances

SUBJECT: Social Studies

1. Role playing in areas related to Social Studies, such as:
   ---Presidential Cabinet Meeting
   ---Continental Congress
   ---Union Negotiations
   ---Political Conventions
   ---Personnel Review Board (Hiring and Promotions)
   ---etc.

2. Using the Teletrainer:
   2.1 Current issues
   2.2 Calling for information: City Hall ---discussions of elections
   2.3 In all recitations

PERFORMANCE COMPETENCIES

LESSON TITLE: 2.0 Critical Observation

OBJECTIVES: The student will be able to critically observe with a 80% to 90% accuracy.

BACKGROUND INFORMATION: From each of the Phase I SCRIBE teachers, it was found that critical observation was an intregal part of each job.. Therefore, we believe that each student should be made aware of critical observation as an objective of his education.

Critical observation is the basis of quality control, recognizing standard symbols, speed reading and technical writing.

STATEMENTS OF PROBLEMS:

1. The teacher should release the student to make their own observations without explicit instructions.
2. The teacher should be willing to accept the frustrations of the students "trial and error" investigation in discovering the needs of critical observation.

PERFORMANCE COMPETENCIES

LESSON TITLE: 3.0 Math - Addition/Subtraction Combinations

OBJECTIVES: To solve problems in addition and subtraction to increase speed and accuracy.

BACKGROUND INFORMATION: The above objective is based on the need for solving addition and subtraction problems in a limited period of time. This is in accordance with recommendations of the teachers involved in SCRIBE.

PERFORMANCE COMPETENCIES

LESSON TITLE: 3.0 Science - Simple Addition/Subtraction Combinations

OBJECTIVE: To solve problems in addition and subtraction in the field of Science.

BACKGROUND INFORMATION: The above objective is based on the need for solving addition and subtraction problems in Science. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional Analysis of Performances

SUBJECT: 2.0 Critical Observation - Science

A more advanced activity:

---Under a microscope, place a one cell animal in the field of vision.

---The teacher will evaluate the total number of observable factors of the animal.

---Each student will observe the animal for 20 seconds.

---He is then to list as many parts as possible in a three minute period.

---80% correct must be attained.

(Critical Observation - Social Studies Continued)

In the report, the student should tell who did not observe the specified proceedures, and the physical layout of the courtroom will be included. Of the eight areas mentioned above, six different areas should be included in the report. Of these eight areas, a minimum of three sub-areas should be included in order to demonstrate whether critical observation has taken place.

SUBJECT: 2.0 Critical Observation - Math

A more advanced activity:

---In a box place various colored geometric figures: cubes, cylinders, shperes, cones and three dimentional rectangles, (and other identifiable forms), twenty forms in total.

---Each student will have twenty seconds to look at the objects in the box.

---He is then to list as many forms as possible.

---The student must list 18 objects and their colors correctly to have acceptable critical observation.

SUBJECT: Critical Observation - English - Occupational Communications

A more advanced activity: Pass around the room a box containing 15 colorful and interesting objects:

---Each student will have five seconds to look at the objects in the box.

---Each student then is to list as many of the objects as he can.

---To evaluate whether critical observation has occurred, 80% correct of the items in the box should be reached.

---From this list write a descriptive paragraph in which 10 objects are identified and related to a topic of the student's own choice, or assigned topic.

---To adapt to Haiku form of poetry, the student will select three objects from their list of 10 as the basis of the Haiku poem.

SUBJECT: 2.0 Critical Observation - Social Studies

To be able to judge whether critical observation has taken place, the following formula may be used:

$$P=f\ (t,r)$$

P=Performance, f=function, t=time required to complete observation, r=object observed.

The scale of proficiency will be derived by each teacher according to the intelligence track of each class.

A beginning activity:

---Observe number of teachers desks in room.
(Ten seconds time limit with 90% correct.)

---Observe number of student desks in room.
(Thirty seconds time limit with 90% correct.)

---Observe number of bulletin boards in room.
(Ten seconds time limit with 90% correct.)

---Observe number of female students in room.
(Thirty seconds time limit with 90% correct.)

---Observe number of male students in room.
(thirty seconds time limit with 90% correct.)

A more advanced activity: Go to a court room where the students can observe the following actions of:

---The courtroom
---The court recorder
---The court clerk
---The judge
---The lawyers
---The witnesses
---The plaintiff
---The defendent

Within a time limit of one class period, the students will write a report of the proceedings to demonstrate knowledge of the following:

---Vocabulary
---Behavior - Social
---Procedures - Legal

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 3.0 Social Studies - Simple Addition/Subtraction Combinations

1. Addition and subtraction is utilized in reapportionment to determine the LOSS or ADDITION of representatives based on population.
2. Trace the Stock Market for losses and gains (Plus and Minus).

EVALUATION: Time test based on speed and accuracy.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 3.0 Simple Addition/Subtraction Combinations - Science

In making experiments stress measurements and mixtures (Plus and Minuses).

EVALUATION: Time test based on speed and accuracy.

PERFORMANCE COMPETENCIES

LESSON TITLE: 3.0 Social Studies - Simple Addition/Subtraction Combinations

OBJECTIVES: To solve problems in addition and subtraction in the field of Social Studies.

BACKGROUND INFORMATION: The above objective is based on the need for solving addition and subtraction problems in Social Studies. This is in accordance with recommendations of the teachers involved in SCRIBE.

PERFORMANCE COMPETENCIES

LESSON TITLE: 4.0 Legible Writing

OBJECTIVE: Teaching each student to take the necessary time and effort to write or print legible.

BACKGROUND INFORMATION: In business and industry it was found that on all jobs where writing or printing was used it was essential to employ clear and readable numeric and alphabetic characters.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 4.0 Math -

1. The teacher should insist on clear and intelligible writing or lettering on all assignments from each student.

2. Improvement and correction of writing or printing bad habits should be encouraged according to the attached sheet "Improving Your Handwriting".

IMPROVING YOUR HAND WRITING

Scientific Research tells us that about half of all the illegibilities in writing are caused by these four errors:

1. Failure to close letters.
2. Looping letters that should not be looped.
3. Failure to keep top loops open.
4. Failure to keep rounded letters fround.

THE FOLLOWING THREE ITEMS WILL IMPROVE HAND WRITING 60%:

1. Uniform slant of all letters.
2. Proper alignment--all letters rest on the base line and raise to their proper height.
3. Uniform spacing between words. (Width of a small "o" between words.)

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: English

1. The teacher should insist on clear and intelligible writing or printing on all assignments from each student.
2. Improvement and correction of writing or printing bad habits should be encouraged according to the preceeding sheet "Improving Your Handwriting".
3. Activity for measuring the competency of each student's writing for legibility:

---Have the student write a paragraph with every other line skipped then give the paper to others in turn who will print immediately under the script material what has been written.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: Science

1. The teacher should insist on clear and intelligible writing or printing on all assignments from each student.

2. Improvement and correction of writing or printing bad habits should be encouraged according to the preceeding sheet "Improving Your Handwriting".

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: Social Studies

1. The teacher should insist on clear and intelligible writing or printing on all assignments from each student.

2. Improvement and correction of writing or printing bad habits should be encouraged according to the preceeding sheet "Improving Your Handwriting".

PERFORMANCE COMPETENCIES

LESSON TITLE: 5.0 Speed Reading

OBJECTIVE: The student will be able to speed read specific material (according to subject matter) in a specified time, and be able to interpret the material.

BACKGROUND INFORMATION: In any work situation, the worker is given something to read, either a directive, work order, requisition order, or manuels. The employee must be able to read the item quickly and execute his job proficiently within the framework of his order.

If an employee takes two minutes to read a job order, he them has more time to execute his job, but if he takes 30 minutes to read his job order, he then has a shorter period of time to produce a good product.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 5.0 Speed Reading - Math

Activity:

---Read ten written problems.

---Execute the necessary math with 30 minutes to arrive at solutions.

---90% accuracy is required.

---A sample problem:

A train travels 105 miles in an hour. How long will it take the train to travel 382 miles.

ACTIVITIES

Instructional Analysis of Performances

SUBJECT: 5.0 Speed Reading - English

Activity:

---Take five (5) sample work orders from the shop classes or from industry and Business English.

---Read and interpret them in a specified amount of time, whereby, there can be a correlation between amount of information contained and the accuracy of interpretation.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 5.0 Speed Reading - Science

Activity:

---Read the directions to a specific lab experiment.

---The student will have three minutes to read the directions (200 words in length).

---In turn, the student will write his interpretation of what he read.

---He will have ten minutes to complete interpretation.

PERFORMANCE COMPETENCIES

LESSON TITLE: 6.0 Budgeting Time - Math

OBJECTIVES: To Budget time in Mathematics to improve job performance.

BACKGROUND INFORMATION: The above objective is based on the need for budgeting time. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 6.0 Budgeting of Time - Math

Read instructions prior to answering Math questions. Follow step procedure in working problems.

EVALUATION: Test to judge speed and accuracy.

FIRST? (1) Which questions did the students answer

(2) How much time did he devote to each

QUESTION? (3) Priorities, Judgement, Discrimination

Comparisons should be stressed.

PERFORMANCE COMPETENCIES

LESSON TITLE: 6.0 English - Budgeting of Time

OBJECTIVES: To budget time in English to improve job performance.

BACKGROUND INFORMATION: The above objective is based on the need for budgeting time. This is in accordance with recommendations of the teachers involved in SCRIBE.

PERFORMANCE COMPETENCIES

LESSON TITLE: 6.0 English - Budgeting of Time

OBJECTIVES: To budget time in English to improve job performance.

BACKGROUND INFORMATION: The above objective is based on the need for budgeting time. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 6.0 English - Budgeting of Time

Activity:

---Assign a paragraph and have students pick out the eight parts of speech.

---Students give a two, three, or five minute speech on an assigned topic.

EVALUATION: Test for speed and accuracy.

PERFORMANCE COMPETENCIES

LESSON TITLE: 6.0 Science - Budgeting of Time

OBJECTIVES: To budget time in Science to improve job performance.

BACKGROUND INFORMATION: The above objective is based on the need for budgeting time. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional
Analysis of Performances

SUBJECT: 6.0 Science - Budgeting of Time

Activity:

----All scientific apparatus should be properly arranged prior to experimentation.

----Two students do the same experiment and judge them on the basis of speed and accuracy.

EVALUATION: Test for speed, accuracy, and organization.

PERFORMANCES COMPETENCIES

<ins>Instructional
Analysis of Performances</ins>

LESSON TITLE: 6.0 Social Studies - Budgeting of Time

OBJECTIVE: To budget time in Social Studies to improve job performance.

BACKGROUND INFORMATION: The above objective is based on the need for budgeting time in Social Studies. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

SUBJECT: 6.0 Social Studies - Budgeting of Time

Activity:

---Assign a test consisting of short answer and essay questions. Each question should be assigned a certain value or worth (5, 10, 15, 20, Points etc.)

---The student should realize the importance of devoting most of his time to the questions that have the most points.

PERFORMANCE COMPETENCIES

SUBJECT: 7.0 Estimating

OBJECTIVES:

To teach three types of estimating: guessing, approximating, and exact measuring.

BACKGROUND INFORMATION:

Although exacting devices are used on most technical jobs, for completeness and historical interest, the distinction should be made among "guessing," "approximating," and "exact measurement" with proper instruction in the appropriate uses of each.

PERFORMANCE COMPETENCIES

SUBJECT: 7.0 Estimating

OBJECTIVES:

To teach three types of estimating: guessing, approximating, and exact measuring.

BACKGROUND INFORMATION:

Although exacting devices are used on most technical jobs, for completeness and historical interest, the distinction should be made among "guessing," "approximating," and "exact measurement" with proper instruction in the appropriate uses of each.

SUBJECT: 7.0 Estimating - Math

It is suggested that this topic be taught using the concept of "frame of reference" in that any measurement is at one and the same time--depending upon the purpose of the measuring--a "guess," and "approximation," or an "exact measurement." For instance, comparing the size of a piston visually with its cylinder is a guess, using a rule is an approximation, and using a micrometer is exact; each is appropriate under different circumstances.

Areas for using estimating:

1. Distances
2. Weights
3. Hights
4. Time
5. Frequences
6. Etc.

A degree of acceptable efficiency is reached when a student can tell in 99 per cent of cases which method of estimating is appropriate when factors of economy and time are considered.

SUBJECT: 7.0 Estimating - English

The application of the principles of estimating are limited in the English area; therefore, it would be advisable for the English teacher to coordinate problems from the other occupational disciplines including the vocational shop teachers. Various types of job estimations concerning time and material could be written in report form. (In most cases the English teacher will not be acquainted with the technical aspects of the estimating problem; he will be responsible only for the form which includes, punctuation, spelling, grammar, and usage.)

SUBJECT: 7.0 Estimating - Science

It is suggested that this topic be taught using the concept of "frame of reference" in that any measurement is at one and the same time--depending upon the purpose of the measuring--a "guess," an "approximation," or an "exact measurement."

Areas for Using Estimating:

1. Quantities in mixtures and compounds
2. Astronomical distances
3. Ratio of speed of light to sound
4. Blood pressure
5. Breathing and pulse rate
6. Wind velocity
7. Etc.

A degree of acceptable efficiency is reached when a student can tell in 99 per cent of cases which method of estimating is appropriate when factors of economy and time are considered.

SUBJECT: 7.0 Estimating - Social Studies

As estimating is being taught in the occupational math classes, it might be an aid to the students to have a unit in social studies where various estimating techniques are explored as they are employed sociologically. Some of these areas are:

1. Age of man on earth
2. Age of animals on earth
3. Length and determination of eras
4. Public poll sampling
5. Television index rating

PERFORMANCE COMPETENCIES

SUBJECT: 8.0 Safety

OBJECTIVES:

To help students become more conscious of safety on the job and in their personal lives.

BACKGROUND INFORMATION:

"No job is so important and no service is so urgent that we cannot take time to perform our work safely," is a slogan of the Bell System. It is characteristic of the attitude throughout business and industry showing the high priority given safety today.

SUBJECT: 8.0 Safety - Social Studies

I. Sociological aspect of safety

1. Lost man hours
2. State and local safety regulations
3. Workman's compensation
4. Driving
5. At home

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Films Recommended by the Above Offices

Running Time		Title	Subject
16mm	11 min.	"Case of Cluttered Corner:	Suspense filled whodunit. Picture shows methods used in developing clues. Based on an actual case. Film shows many good and bad housekeeping methods.
16mm	10 min.	"Falls Are No Fun"	This is an all cartoon film and the lessons taught will be remembered because of the humor used. Shows various kinds of falls and how they can be avoided.
16mm	15 min.	"Lift Safety the Easy Way"	The film points out that Everyone does lifting and graphically shows how it should be done. Sequences include heavy lifting being done by employees. Diagrams and models are used to show proper technique.

State of California
Division of Industrial Safety
P.O. Box 603, San Francisco 1

SAFETY FILMS AND FILMSTRIPS

All films are available for loan in California only

When requesting films, make reservations well in advance, listing alternate dates in the event the film is not available for the date of first preference.

Films should be returned promptly after last showing, via parcel post of express, prepaid and insured for $200.00 each.

Sound films must not be used on silent projectors, because these projectors have double sprockets and would therefore damage the sound track.

If more than one film is borrowed, please return films in original cases.

Please report any defect or damage to any films.

Running time		Title	Subject
		GENERAL	
16mm	30 min.	"Closed Book"	A story of how a community was converted to safety.
16mm	28 min.	"Knowing's Not Enough"	Gives the four main personal causes of accidents and dramatically and forcefully shows the need for thinking before an accident happens.
16mm	18 min.	"Power Punch Press Safety" (In Color)	Describes operation of barrier guard, gate guard, two-hand tripping device, pull-out guard, hold-back guard, photo-electric guard.
16mm	23 min.	"Safety at Work"	An introduction to industrial safety, with emphasis on power press guarding.
16mm	13 min.	"Punch Press Guarding" (In Color)	Shows safe operation of power punch press, and the role a maintenance mechanic should play in adjusting guards.
35mm	15 min.	"No Laughing Matter"	General subject of falls.

Running Time		Title	Subject
35mm	16 min.	"Open for Infection"	How and why infections occur, and how they can be prevented.
35mm		"Personal Side of Safety"	Set of five films for workers, attacking the most troublesome of safety problems -- "the human element."
	15 min.	a. Safety Record	
	15 min.	b. Two Steps to Safety	
	15 min.	c. Let Habit Help	
	15 min.	d. Get a Grip on Yourself	
	15 min.	e. Decide to be Safe	
35mm		"Safe in Hand"	The care and use of hand tools.
	11 min.	a. Machinists' Hand Tool Safety	
		b. Maintenance Hand Tool Safety	

SUBJECT: 8.0 Safety - Science

1. Poisons and antidotes
2. Electricity
3. Insect and animal bites
4. First Aid
5. Chemicals (combustable)
6. Forest fires
7. Using fire extinguishers
8. How to operate fire and police emergency signals
9. Contacting by phone

PERFORMANCE COMPETENCIES

SUBJECT: 9.0 Standard Symbols

OBJECTIVES:

1. Student must be able to use the symbols of his particular job.
2. Student will be able to use key to symbol-system of a particular job.

BACKGROUND INFORMATION:

In each job of the SCRIBE teachers, it was found that a symbol-system was used. Consquently, we believe that students have a working knowledge of keys to various symbol-systems.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 9.0 Standard Symbols - English (Occupational Communications)

1.0 Activity: Exposure to symbols. (Beginning activity)
  1.1 Road maps from Automobile Club of Southern California or local service station.
  1.2 Explanation of legend found on map.
  1.3 Find and identify other symbols not explained in legend.
  1.4 Construct a list of symbols found in step 1.3.
  1.5 Intergrate the map's legend with the student's legend for a complete list of symbols used in map reading.
  1.6 Evaluation: Give students a map without a legend.
    1.6.1 Students are to construct own legend.
    1.6.2 Second, students are to give instructions on how to go from Long Beach to Los Angeles using the shortest possible route.
    1.6.3 Student has 30 minutes to complete above assignment, with 85% proficiency.

2.0 Activity: Using standard proofreading symbols. (advanced activity)
  2.1 Students are given the list of standard proofreading symbols.
  2.2 The symbols are explained.
  2.3 A set of two paragraphs is given to the students. The paragraphs have mistakes.
  2.4 The students are to find the mistakes and identify them by using the correct symbols.
  2.5 Evaluations:
    2.5.1 Students are given a new set of paragraph (two paragraphs) with 20 mistakes in these paragraphs.
    2.5.2 Using the standard proofreading symbol list, the student has five minutes to locate the mistakes, identify the mistakes properly with the correct symbol.
    2.5.3 Ninety per cent proficiency will indicate accomplishment of use of standard proofreading symbols.

3.0 Activity: Finding the key to the symbols used by students in their chosen area.
  3.1 Each student is to identify his chosen area of job interest.
  3.2 He is then to go and find the key or keys to symbols used in this area.
  3.3 The student is to become acquainted with this key, which will further his use of symbols in his chosen area of job interest.

PERFORMANCE COMPETENCIES

SUBJECT: 10.0 Math - Building A Career Vocabulary

OBJECTIVES:

To associate and relate occupational terminology with words used in mathematics. These words should be taken by the students from the daily newspapers and periodicals.

BACKGROUND INFORMATION:

The above objective is based on the need for vocabulary building reached in the conclusions of the five academic teachers (SCRIBE) upon their return from employment in industry.

ACTIVITIES

Instructional
Analysis of performance

SUBJECT: 10.0 Math - Building A Career Vocabulary

The student should keep a list of words taken from newspapers which relates to math occupational terminology.

EVALUATION:

Define and test each week

Final test - matching

PERFORMANCE COMPETENCIES

SUBJECT: 10.0 English - Building A Career Vocabulary

OBJECTIVES:

To associate and relate occupational terminology with words used in science. These words should be taken by the students from daily newspapers and periodicals.

BACKGROUND INFORMATION:

The above objective is based on the need for vocabulary building as cited in the recommendations of the five academic teachers (SCRIBE) upon their return from employment in industry.

ACTIVITIES

Instructional
Analysis of performance

SUBJECT: 10.0 Science - Building A Career Vocabulary

The student should keep a list of words taken from newspapers which relates to scientific occupational terminology.

EVALUATION:

Define and test each week

Final test - matching

ACTIVITIES

Instructional
Analysis of performance

SUBJECT: 10.0 Social Studies - Building A Career Vocabulary

The student should keep a list of words taken from newspapers and periodicals which relate to occupational terminology. Economic terms as inflation, stock market, par value, budget, deflation, gross national product, national debt, debt ceiling, discount rate, interest, and so forth.

EVALUATION:

Define and test each week

Final test - matching

PERFORMANCE COMPETENCIES

SUBJECT: 10.0 Social Studies - Building A Career Vocabulary

OBJECTIVES:

1. To learn the definition of words used frequently in daily newspapers and periodicals which deal with business and industry.
2. To associate and relate occupational terminology with words used in economics.

BACKGROUND INFORMATION:

The above objectives should develop career vocabulary building based on the findings of five occupational teachers who worked in industry for five weeks for the SCRIBE Program this summer.

PERFORMANCE COMPETENCIES

SUBJECT: 11.0 Quality Control

OBJECTIVE:

The student will be able to control quality. The evaluation of proficiency will be judged by a time-quantity formula with a 90% accuracy as attainment.

BACKGROUND INFORMATION:

From all the jobs of the Phase I teachers it was found that some form of quality control was present in all companies. Therefore, it is believed that the students should be made aware of the presence and expenditures of quality control in industry and how quality control is maintained.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 11.0 Quality Control - English (Occupational Communications)

Activity can be performed alone or in pairs of students. The teacher selects ten sentences containing three errors per sentence. Suggested errors could be spelling, punctuation, and subject/verb agreement, etc.

1. The student has fifteen minutes to find 30 errors.
2. Have students exchange papers.
3. Together, decide which 30 errors are the correct 30 errors.
4. Pairs of students submit final copy with their selected 30 errors noted.
5. The above activity (4) will have a time limit of ten minutes to accomplish.
6. If the students accomplish the above, the control of quality has been attained.

Activity:

1. Students write a 100 word composition on a topic chosen by the teacher.
2. The student gives his finished product to another student.
3. The second student checks the paper for any errors, returning the paper to the first student for corrections.
4. Both students submit the paper to the teacher for grading and checking.
5. The teacher evaluates the paper: (1) for quality, from the first student, (2) and for quality of control of errors from the second student.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 11.0 Quality Control - Math

Activity:

Use of adding machines after completing a problem.

1. Figure problem in the mind.
2. Figure problem on paper.
3. Use adding machine to check answer. (quality control)
4. Use five problems of three digit number, for both adding and subtracting.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 11.0 Quality Control - Science

Activity: To measure and weigh various powered chemicals.

1. A list of required chemicals is given each students.
2. Students are to measure and weigh each different sets of chemicals and record their results.
3. After the entire list has been measured and weighed, the list is given to another student.
4. The second student will re-measure and re-weigh the list of chemicals to check the quality of the first results.
5. The teacher will evaluate the first student's results on accuracy and the second student's results on the control of the first results.

Activity: Visit a quality control lab where quality is controlled by this lab and reported back to another company.

1. Take from this lab a real problem in quality control.
2. At the lab in the classroom in school, have the students perform the test of quality control on the test item.
3. Record the results.
4. Return the results and the item to the lab for their tests on the same item.
5. If the lab results and the student test results concur, the students have performed the function, correctly, of actual quality control.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 11.0 Quality Control - Social Studies

Activity:

1. Set up a polling place for a mock election. This will demonstrate the control of quality in an election, to guarantee true and correct polling results.
2. Have the voters vote.
3. Have the regularly required poll watchers and party representives.
4. After the voting has been completed, have students count the ballots.
5. Have a second team re-count the ballots to insure the totals are correct.
6. The evaluation will come in the teacher being sure that the two different counting teams' results are the same.

PERFORMANCE COMPETENCIES

SUBJECT: 12.0 Logic (Problem Solving)

OBJECTIVES: To study the problem of inflation

BACKGROUNG INFORMATION:

The above objective is based on the need for logical thinking. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional
Analysis of Performance

SUBJECT: 12.0 Social Studies - Logic (Problem Solving)

(1) Define the problem (inflation)

HISTORICAL BACKGROUND:

(2) Why is it a problem?

(3) What is being done to solve this?

PROBLEM:

(4) Possible alternatives if the probelm isn't solved.

EVALUATION:

Written and oral test using the activities to answer other problems.

PERFORMANCE COMPETENCIES

SUBJECT: 12.0 English - Logic (Problem Solving)

OBJECTIVES:

To arrange sentences in a logical order.

BACKGROUND INFORMATION: The above objective is based on the need for logical thinking. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional
Analysis of performance

SUBJECT: 12.0 English - Logic

Mix up sentences and have the students rearrange them in a logical sequence.

EVALUATION:

Test

PERFORMANCE COMPETENCIES

SUBJECT: 13.0 English - TECHNICAL TELEPHONE COMMUNICATIONS

OBJECTIVE: To properly communicate on the telephone

BACKGROUND INFORMATION:

The above objective is based on the need for improving communication via the telephone. This is in accordance with recommendations of the teachers involved in SCRIBE.

ACTIVITIES

Instructional
Analysis of performance

SUBJECT: 13.0 English - Technical Telephone Communications

1. Use tela-trainer. Two students communicate to each other and the teacher and the students observe.
2. Use of tapes and oral reports.

EVALUATION:

Test by teacher and students to judge such qualities as tone inflection, courtesy, articulation, correct grammar, etc.

PERFORMANCE COMPETENCIES

SUBJECT: 14.0 Career Development

OBJECTIVE: The student should be made to know the general criteria for measurements that job interviewers and supervisorial evaluations.

BACKGROUND INFORMATION: SCRIBE teachers have found that success at any level depends equally upon social adjustment and skill performance.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 14.0 Social Studies

The Interviewer's Criteria

Appropriate Dress

Greeting
- a) handshake
- b) posture
- c) voice
- d) attitude

The Dialogue
- a) indirect questioning
- b) direct questioning

Written forms
- a) the telephone interview form
- b) written tests (of basic skills)
- c) the written application

It is suggested that the technique of role playing be employed to teach and give students practice in the social action of dealing with the interviewer.

The Supervisor's Criteria

The students should be made aware of these various categories of appraisal used by management:

See attached sheet "Progress and Appraisal Report"

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 14.0 Math

Basic math in order to pass entrance tests in industry and civil service.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 14.0 Science

Basic science in order to pass entrance tests in industry and civil service.

ACTIVITIES

Instructional
Analysis of performances

SUBJECT: 14.0 English

A Self Examination Inventory (see attached sheet)

Reading Comprehension tests at the level of entrance tests in industry and civil service.

Basic English in order to pass entrance tests in industry and civil service.

A SCHEME OF RELATIONSHIPS OF SCRIBE AND T-COES

The blending of T-COES with SCRIBE provided the stimulation to the imagination of the SCRIBE teachers which lead to the creation of the Subject Area Performance Matrix and the Detailed School Performance Synthesis.

The method employed in developing this paradigm is the unique and valuable product formed in the crucible of SCRIBE and T-COES.

Henry S. Lager
Co-editor, final report

In the earliest stages of the development of a core of organized experience units from which to extract the performance competencies to be taught in every subject area, the SCRIBE members, ably led by Mr. Henry Lager's brilliant conception, plunged into an examination of the raw information garnered from the experiences of the academic teachers in industry plus the background experiences of the counselors and occupational teachers involved in the project and in the T-COES conference.

First, the typical motor and cognitive acts involved in each job were listed and examined in terms of the question of communicating this experience to a learner. A discussion developed about the theoretical basis of information theory. This involved symbol-systems and the transmission of concepts. Learning psychology arose naturally as the learner, as stimulus-response was discussed. The names of Maslow, Skinner, Glasser, etc. arose frequently as categories were established for each disciplined attack upon the barrier of blockage existing between the theorethical and the "real" world of the factory, shop, and store. It was decided that the experiences which filtered thru the image should not be taught as discrete items in arbitrarily separated courses. It was discovered that there were junction points between math, English, science, and social studies which made for the develoment of synergisms making it possible for a student to experience reinforcement in every subject area.

A. G. Rogers
Co-editor, final report

The framework which follows served as a tool for the members of SCRIBE '68 to cover the ground necessary to proceed from the "raw" language of the job to the language of a new curriculum based on immediate experience, as visualized by the T-COES Program.
This immediate job experience was inductively analyzed by the teacher and recorded on Job Analysis Forms.

From the job analysis this synthetic framework was devised by the group, and lead to the development of a Curriculum Subject Matter Chart, which proved useful in developing guides to student performance.

This route (systhesis) follows consecutive frames or categories and is delineated on the following pages so that this method may be explored for its possible service to others.

The following pages include nineteen frames which serve as a scheme to relate information from the language heard and used on the job to systematically develop curriculum subject material.

FRAME 1

This frame includes language or phrases used on the job which illustrate a concept, designate a performance or a group of tasks, suggest a set of behaviors or conditions which the academic teacher experienced on the job during Phase I of SCRIBE activities.

FRAME 2

This frame includes words or phrases used by the teacher to translate the "raw information" assimilated on the job into more meaningful symbols which point to theoretical bodies of information which contribute toward systematic and thorough curriculum development.

FRAME 1	FRAME 2
"REAL WORLD" PRACTICES	EDUCATIONAL PRACTICES
LANGUAGE USED ON THE JOB	DIRECTIONAL INFORMATION
"HELLO"	CRITICAL OBSERVATION
"GREETING HELLO"	DEXTERITY
"SAFETY"	SPEED READ
"MANNERS"	ROLE PLAY
"SELL PHONES"	OBJECTIVE OBSERVATION
"COMPATABILITY"	SELF IMAGE
"PERSONABLE"	SIMPLE ADDITION AND SUBTRACTION COMBINATIONS (DO SPEEDILY)
"TACTFUL"	
"INDEPENDENT"	FILTER OUT NOISE
"HONESTY"	TASK ORIENTED BEHAVIOR
"TO BE PLEASING"	ANALYSIS
"QUALITY CONTROL"	SYNTHESIS
	DISCOVERY
	PRODUCTIVITY

COMMUNICATIONS THEORY

Signal words used on the job which illustrate a concept, designate a performance or group of tasks, suggest a set of behaviors or conditions picked up by the teacher in the job situation.

The symbol language or word used on the job which is interpreted and then translated to a word or concept more useful to the educator which may point to a theoretical body of information.

This scheme or conception follows the general lines of communications established by the SCRIBE group to relate the words of a job to the information content needed to formulate curriculum.

FRAME 3

This frame includes words and phrases from the area of academic theory dealing with communications and information. This theoretical area served as the primary source of concepts and ideas used by SCRIBE '68 and contributes to the systematized development toward the CURRICULUM SUBJECT MATTER MATRIX and to the INSTRUCTIONAL ANALYSIS which follows.

FRAME 4

This frame includes words and phrases used by the SCRIBE group which for a short time included counselors from Compton Union High School District which fall in the discrete category of behavioral theory or psychology. Four authors are included who have organized information in this academic field. When time permits, research and interpretation will be made to relate this body of information to teaching methods, testing and curriculum development. (Recommendation of SCRIBE '68.)

2 —— FRAME 3 —— FRAME 4 ——→

ACADEMIC THEORIES

COMMUNICATIONS THEORY	BEHAVIORAL THEORY (PSYCHOLOGY)
IDENTIFICATION OF A SIMPLE CODE	STIMULUS-RESPONSE
MULTI-DIMENSIONAL SYMBOL SYSTEMS	STIMULUS-COMPLICATION-COORDINATION-RESPONSE
GRAPHIC SYMBOLS	CONCEPT FORMATION
CLOSED LOOP	PAIRED ASSOCIATES LEARNING
LOOP	
CLOSED CIRCUIT	COMPLEX LEARNING SETS (Skills)
SENDER MESSAGE	GESTALT - Wholeistic Atomistic
SENDER-MESSAGE-RECEIVER	HULL
MESSAGE-RESPONSE	HULL Learning
RESPONSE MESSAGE	MASLOW Self Actualization
ABILITY TO TRANSMIT	GLASER
HALF-SPLIT CONCEPT	FLANNIGAN Critical Incidents

COMMUNICATIONS AND INFORMATION THEORY

BEHAVIORAL THEORY

OTHER THEORETICAL SYSTEMS OR FRAMEWORKS

COMMUNICATIONS THEORY

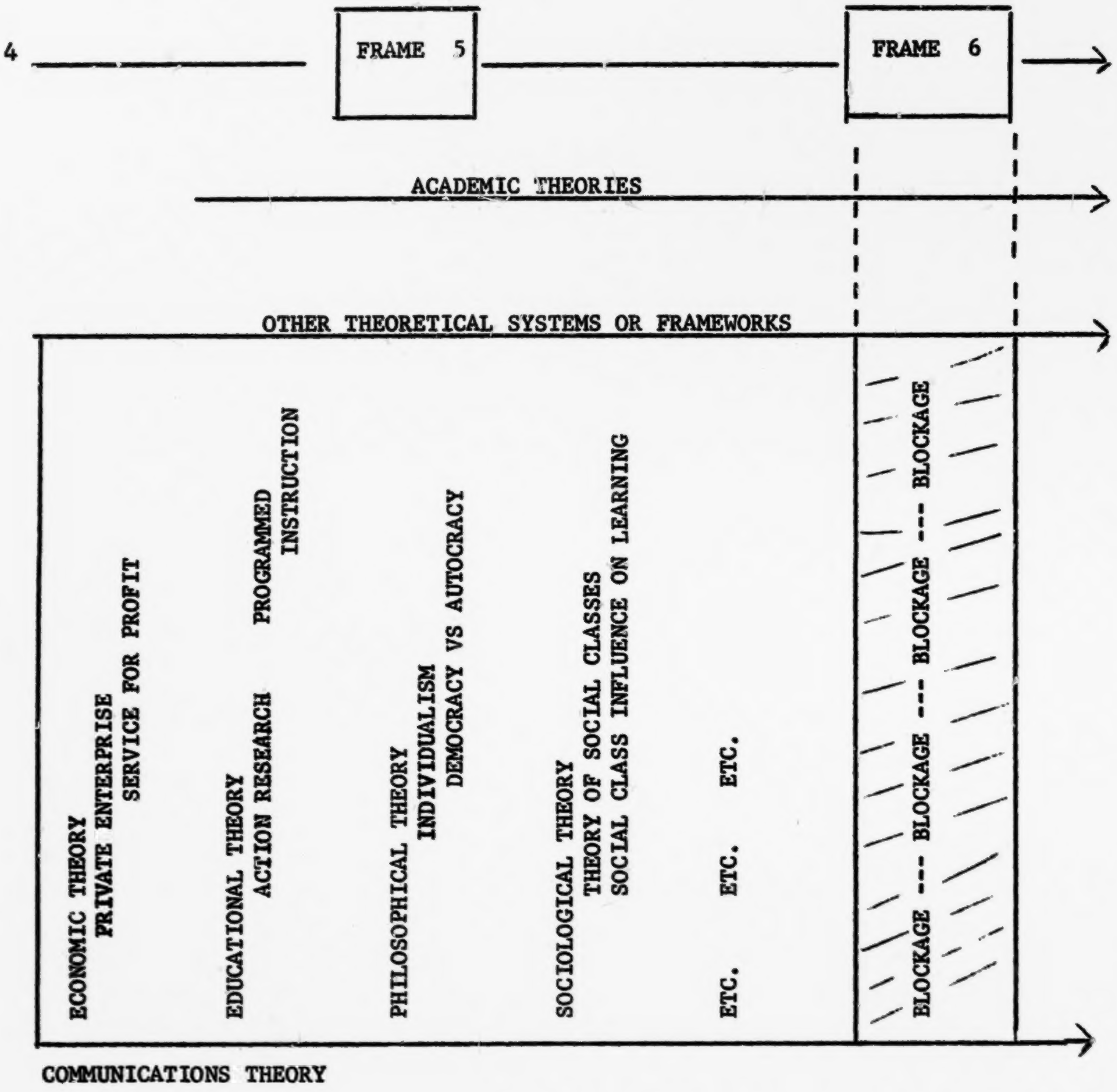
Language used on the job and translated into meaningful communication is screened or filtered in a determined direction through the theoretical bodies of information in the information store (information bank) at the teachers immediate disposal. (Or at the disposal of the group.)

FRAME 5

This frame illustrates other theoretical disciplines such as economics, philosophy, and sociology, through which the course of research would follow to find material relevant to (the inductive process) the new SCRIBE curriculum development.

FRAME 6

This frame suggest the blockage that has traditionally existed between the theoretical world and the "real" world which SCRIBE seeks to overcome. The means of overcoming this blockage is suggested by this conceptual framework which will incorporate theory with the practical reality.


4
FRAME 5
FRAME 6
ACADEMIC THEORIES
OTHER THEORETICAL SYSTEMS OR FRAMEWORKS
ECONOMIC THEORY
PRIVATE ENTERPRISE
SERVICE FOR PROFIT
EDUCATIONAL THEORY
ACTION RESEARCH
PROGRAMMED INSTRUCTION
PHILOSOPHICAL THEORY
INDIVIDUALISM
DEMOCRACY VS AUTOCRACY
SOCIOLOGICAL THEORY
THEORY OF SOCIAL CLASSES
SOCIAL CLASS INFLUENCE ON LEARNING
ETC. ETC. ETC.
BLOCKAGE --- BLOCKAGE --- BLOCKAGE --- BLOCKAGE --- BLOCKAGE
COMMUNICATIONS THEORY

FRAME 7

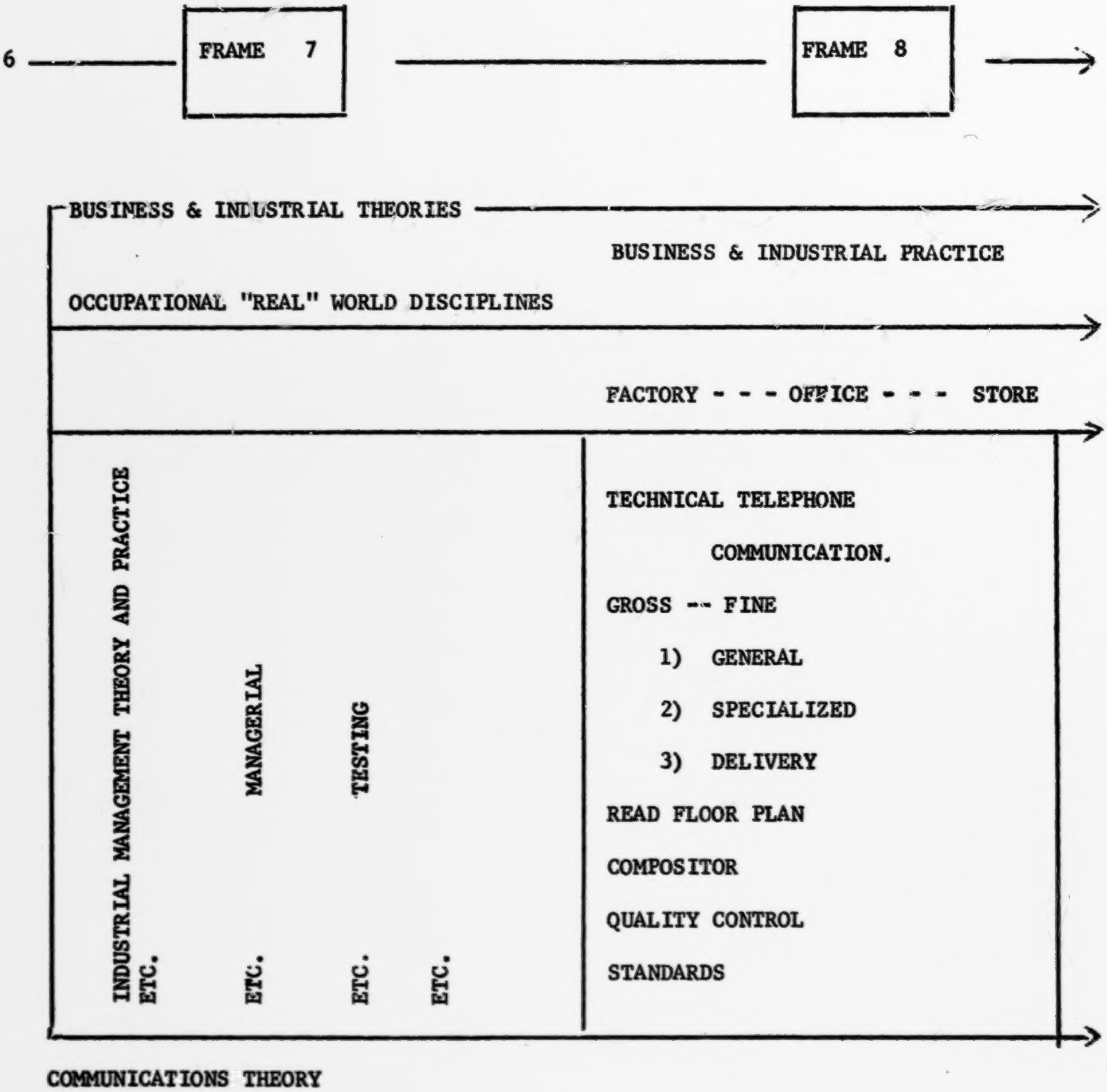
This frame includes such terms as "Industrial Management Theory" and "Manegerial Testing." These terms indicate a body of knowledge used by business and industry. In its new action research, SCRIBE will peruse such material. (Recommendation SCRIBE '68)

FRAME 8

This frame includes terms used in the occupational world which designate specific skills or tasks. The teacher who has been on the job uses only those tasks which he sees as valuable subject matter.

The above two sentences are a restatement of the paragraph below after feedback for information content of the paragraph which follows with a seventeen year old boy as receiver.

This frame includes words and phrases used in the occupational world which suggest a set of learnings or disciplines as they apply in that context. This list can be made limitless, but must, of necessity in this study, stay within the parameters of the experience of the teacher in industry as observer and job analyst. The emperical method of observation and discrimination along inductive guidelines must prevail over the haphazard collection of subject matter entitles which have in the past given vague direction to the students at best.

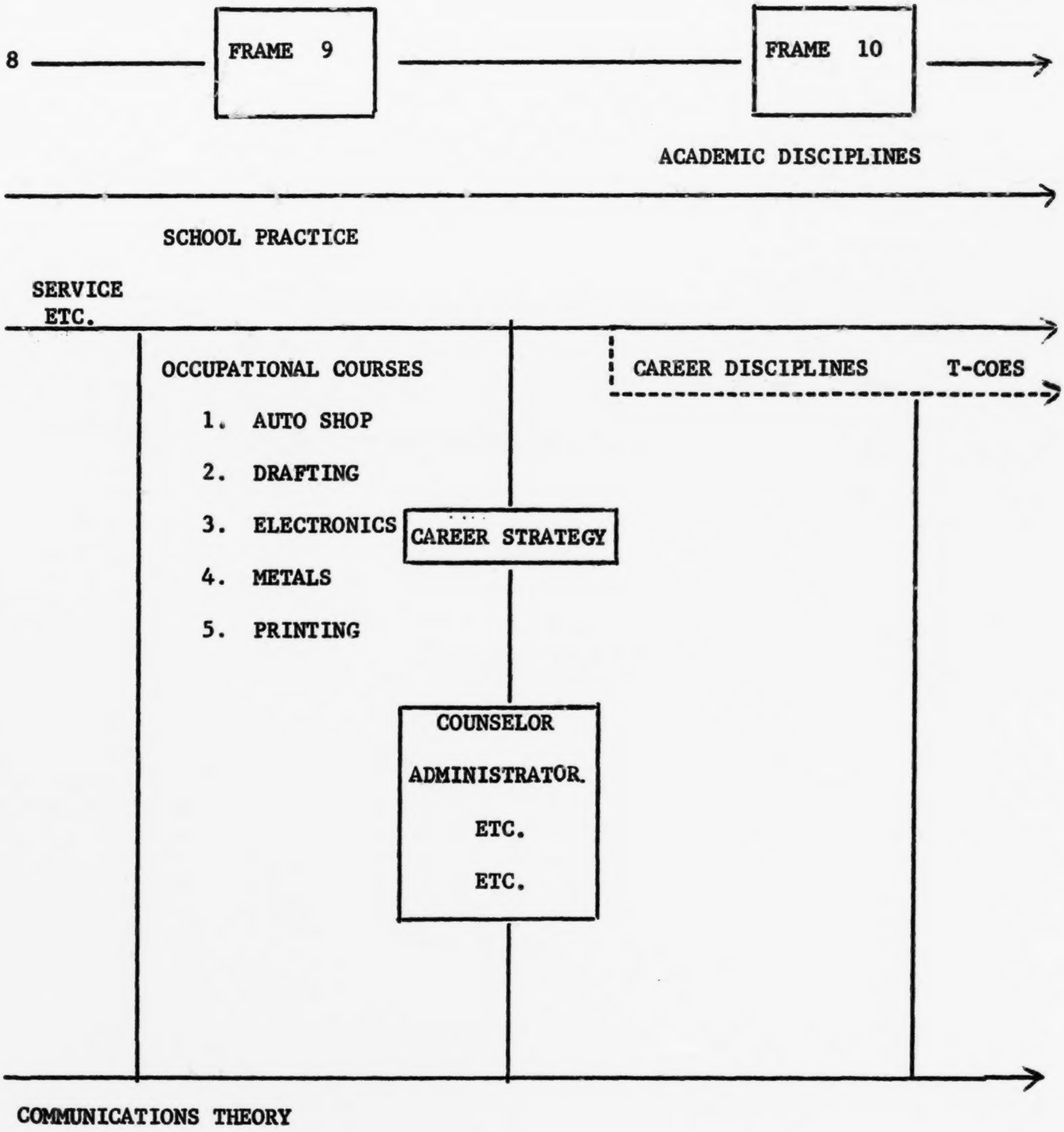

6
FRAME 7
FRAME 8
BUSINESS & INDUSTRIAL THEORIES
BUSINESS & INDUSTRIAL PRACTICE
OCCUPATIONAL "REAL" WORLD DISCIPLINES
FACTORY - - - OFFICE - - - STORE
INDUSTRIAL MANAGEMENT THEORY AND PRACTICE
ETC.
MANAGERIAL
ETC.
TESTING
ETC.
ETC.
TECHNICAL TELEPHONE
COMMUNICATION.
GROSS -- FINE
1) GENERAL
2) SPECIALIZED
3) DELIVERY
READ FLOOR PLAN
COMPOSITOR
QUALITY CONTROL
STANDARDS
COMMUNICATIONS THEORY

FRAME 9

This frame relates the factory, office, store, and service industries to the area already in the school system; the occupational courses, which have duplicated the industrial situation and which may serve to offer some information and methodology relevant to the new directions of T-COES.

FRAME 10

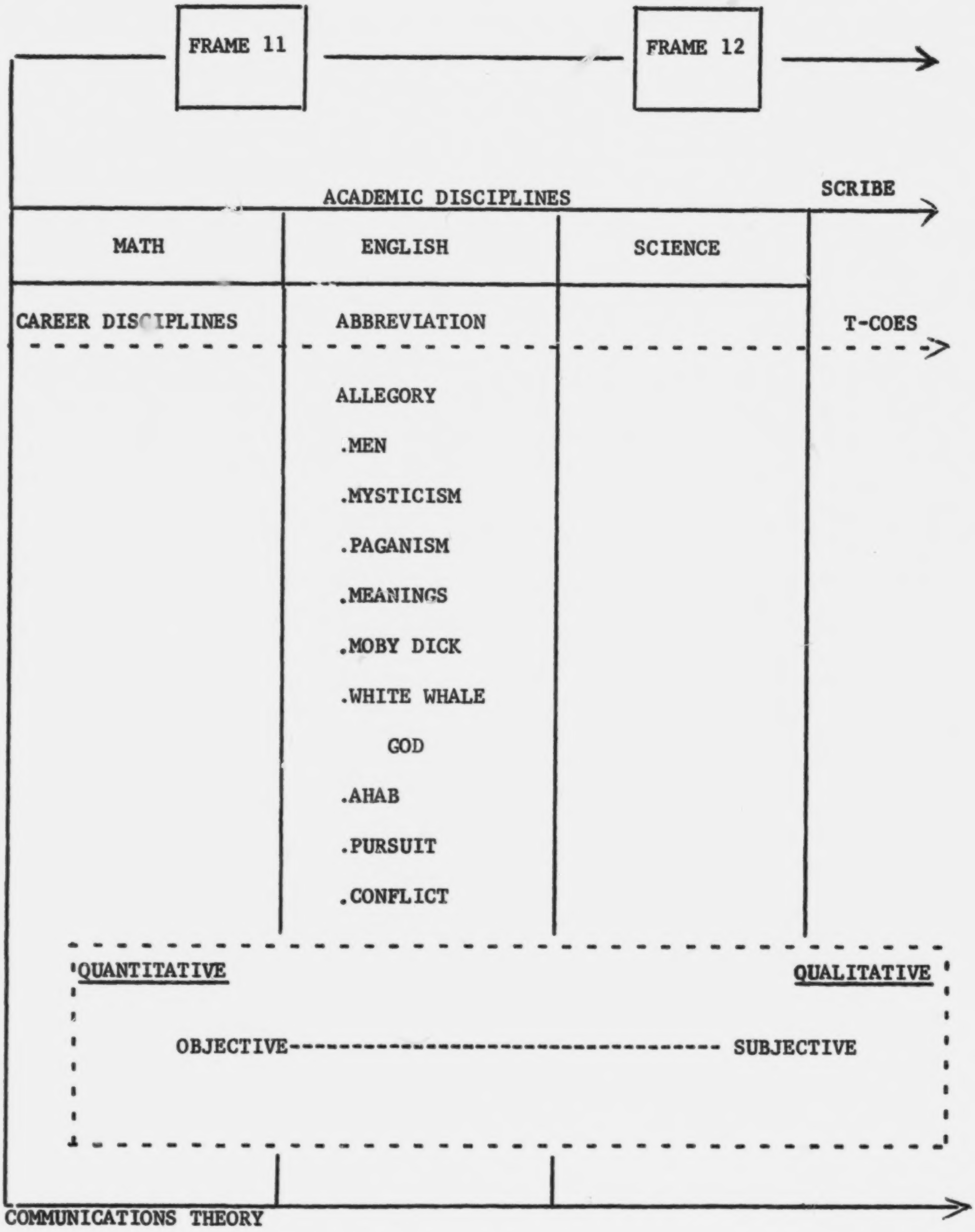
This frame introduces some words, phrases and titles which suggest the new drift of meanings and interpretations which may serve as ralling message to meet the needs of the students who have been so ill prepared to face the job market. Administrators, counselors and teachers in this time of crisis must speedily devise strategies which will place the product of the schools, the student, in a superior position on the job market. The counselors will help the student to prepare job strategems, the administrators will provide the channels, information and resources for the total operation, and the teachers will enter into cooperative teams to unite occupational and academic subject matter into career disciplines which will stand the test of reality. The graduating student will be ready for the job career and/or futher education.


8
FRAME 9
FRAME 10
ACADEMIC DISCIPLINES
SCHOOL PRACTICE
SERVICE ETC.
OCCUPATIONAL COURSES
1. AUTO SHOP
2. DRAFTING
3. ELECTRONICS
4. METALS
5. PRINTING
CAREER STRATEGY
CAREER DISCIPLINES
T-COES
COUNSELOR
ADMINISTRATOR
ETC.
ETC.
COMMUNICATIONS THEORY

FRAME 11 and 12

These frames include the subject areas of mathematics, English and science as they exist in the present school subject matter areas. The English area was ably represented in SCRIBE by Miss Lewis of Dominguez High School. Her stand for essential qualitative experiences, led to the analysis of learnings along a continuum which embraces behavior measurable by quantitative means to that which is subjective and qualitative.

The words from the novel Moby Dick may not have applicibility to the words used in industry and business, but may have great meaning to the reader in his leisure time. In the onrush of career pursuits, the educator may swing too far in the direction of the immediately useful skills in answer to industries needs. Hopefully the new product of the career school will be invested with humane considerations. The individual in a democratic society is foremost a social being aware of the needs of people (in business, industry, theatre, or at home.) It is not unseemly then that a course of study in INDUSTRIAL ENVIRONMENTS, THEIR IMPROVEMENT THROUGH THE PROCESS OF PERSUASION, be included in the new curriculum, for it would be one sided and unrealistic to assume that the career world is at present the ultimate in providing for the maximum self realization of the individual.


FRAME 11
FRAME 12
ACADEMIC DISCIPLINES
SCRIBE
MATH
ENGLISH
SCIENCE
CAREER DISCIPLINES
ABBREVIATION
T-COES
ALLEGORY
.MEN
.MYSTICISM
.PAGANISM
.MEANINGS
.MOBY DICK
.WHITE WHALE
GOD
.AHAB
.PURSUIT
.CONFLICT
QUANTITATIVE
QUALITATIVE
OBJECTIVE------------------------------------ SUBJECTIVE
COMMUNICATIONS THEORY

FRAME 13

This frame includes terms assigned arbitrarily to the subject area of social studies primarily because of the titles such as, "self-image" and "image projection" which deal perhaps with the "social-self." The art teacher can play an important part by explaining color combinations that enhance an individuals looks and how line, color, and harmony, can be applied. This illustrates the meaning of synergism when two bodies (of knowledge) make an interface or reinforce one another.

12 FRAME 13

SCRIBE

SOCIAL STUDIES

SELF IMAGE

WHAT HE THINKS OF SELF

IMAGE PROJECTION

SUPERVISORY TRAINING

INITIATIVE-MOTIVATION

RESPONSIBILITY

ADAPTABILITY

APPEARANCE

PERSONAL HEALTH

*ATTENDANCE

ART

(AESTHETICS)

SELF IMAGE

*(SYNERGISM)

COLOR

COMB

LINE

CONTRAST

HARMONY

*TWO BODIES MAKE AN INTERFACE OR REINFORCE ONE ANOTHER

ETC.

T-COES

COMMUNICATION THEORY

FRAME 14

This frame includes the terms career disciplines, interdisciplines, and "messostud" which proceeds from the logic of the preceeding 13 frames. This represented a new idea for the SCRIBE '68 group for there was consensual agreement that our directions had finally centered upon the interdisciplinary nature of subject matter as applied to career studies. This realization was characterized by coining the term "MESSOSTUD" to stand for the unity of mathematics, English, science, and social studies. Also, their was common agreement that an etcetera must be included to provide the latitude to accommodate all of the academic areas as "MESSOSTUDA" would suggest that the area subject matter of art could be added to the constellation of career subject matter. The ultimate benefit would be derived by the student who must no longer be burdened with the self-incrimination, "I am no good in math." The unrealism of math as a separate entity would be revealed in a common cirriculum bound by real objectives which will be included in the T-COES concept.

13 FRAME 14

INTERDISCIPLINES SCRIBE

- - - - - - - *MUSSOSTUD - - - - - - - - CAREER DISCIPLINES - - -

T-COES

CRITICAL OBSERVATION

QUALITY CONTROL

SPEED READING

STANDARD SYMBOLS

CAREER DEVELOPMENT

ESTIMATING

WRITING AND LETTERING

SAFETY

CAREER VOCUBLARY BUILDING

BUDGETING TIME

ACTIVITIES TO IMPROVE THE ART OF TECHNICAL TELEPHONE COMMUNICATION

LOGIC

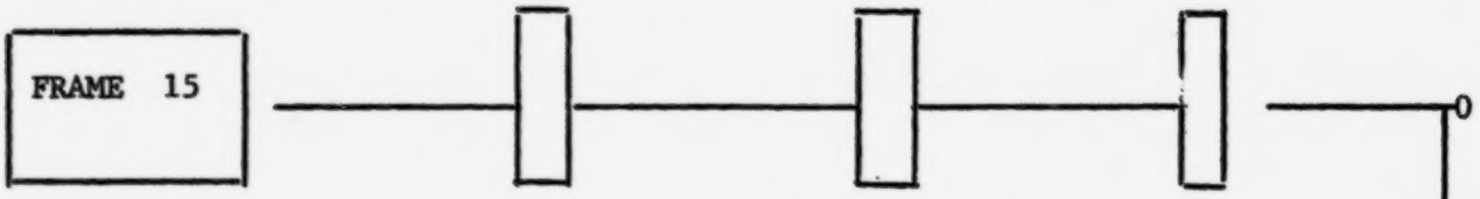
SIMPLE ADDITION AND SUBTRACTION COMBINATIONS

COMMUNICATIONS THEORY

FRAMES 15, 16, and 17

These frames are designated by the traditional divisions of mathematics, English, science and social studies, and include a list of thirteen subjects derived from job analysis relating to student performance competencies. Here the SCRIBE '68 group with full recognition of the present constraints within our educational system set to work, (inspite of hard won principles,) to brainstorm a new idea into an old mold. The resulting guidelines are a product of devotion to new curriculum paths. These guides were made in a few short hours without benefit of the research and development processes.

Included in the full development of curricula for careers, will be packets including programmed instructional materials devised in a cooperative effort of teachers and professional programmed instruction writers. These programs will be tested at first in simple controlled experiments done by teachers in the classroom. Then, when proven successful and efficient for learning, these programmed packets will be given to other teachers to use on a trial basis. Instruction will be detailed and all materials needed will be included. This may lead to a recognition of individualized programs to meet individual student needs and the pacing of learning at the students optimal rate of progress. (Recommendation SCRIBE '68)



<table>
<tr><th colspan="4">TRADITIONAL SUBJECT AREAS</th></tr>
<tr><th>MATHEMATICS</th><th>ENGLISH</th><th>SCIENCE</th><th>SOCIAL STUDIES</th></tr>
<tr><td colspan="2">CRITICAL OBSERVATION
QUALITY CONTROL
SPEED READING
STANDARD SYMBOLS
CAREER DEVELOPMENT
ESTIMATING
WRITING AND LETTERING
SAFETY
CAREER VOCABULARY BUILDING
BUDGETING TIME
ACTIVITIES TO IMPROVE THE ART OF TECHNICAL TELEPHONE COMMUNICATION
LOGIC
SIMPLE ADDITION AND SUBTRACTION COMBINATIONS</td><td></td><td></td></tr>
</table>

The ideas being advanced by T-COES, are seeded within this report. The hope of a new school, systematically organized, with coherent lines of communication and feedback, intra-and-inter-school and community--staffed with competent handlers of information and materials, dedicated to the humane use of human beings--this was the aim and target of the work of SCRIBERS '68.

FRAME 16

TRADITIONAL SUBJECT AREAS

SCIENCE

CRITICAL OBSERVATION

QUALITY CONTROL

SPEED READING

STANDARD SYMBOLS

CAREER DEVELOPMENT

ESTIMATING

WRITING AND LETTERING

SAFETY

CAREER VOCABULARY BUILDING

BUDGETING TIME

ACTIVITIES TO IMPROVE THE ART OF TECHNICAL TELEPHONE COMMUNICATION

LOGIC

SIMPLE ADDITION AND SUBTRACTION COMBINATIONS

FRAME 17

SOCIAL STUDIES

CRITICAL OBSERVATION

QUALITY CONTROL

SPEED READING

STANDARD SYMBOLS

CAREER DEVELOPMENT

ESTIMATING

WRITING AND LETTERING

SAFETY

CAREER VOCABULARY BUILDING

BUDGETING TIME

ACTIVITIES TO IMPROVE THE ART OF TECHNICAL TELEPHONE COMMUNICATION

LOGIC

SIMPLE ADDITION AND SUBTRACTION COMBINATIONS

SCRIBE JOINS T-COES IN CONFERENCE

The members of the SCRIBE Committee joined with the T-COES Group in conference at the Cockatoo Inn on August 6, 7, and 8th. The workshop began at 9:30 on Tuesday with greeting from Dr. List, Mr. Graham, and Mr. Zuck of the Compton Union High School District.

The kick-off speech was given by Dr. De Bernardis of Portland Community College, Portland, Oregon. Dr. De Bernardis discussed the education system and its programs. He stated that education should be a part of the total community and it should be fore fronted and not following years behind. Although Dr. De Bernardis was quite enthusiastic about their programs at their community college, it should be mentioned that many California communities have been implementing similar ideas for years. Such practices as flexible programming, acceptance of high school dropouts in junior colleges.

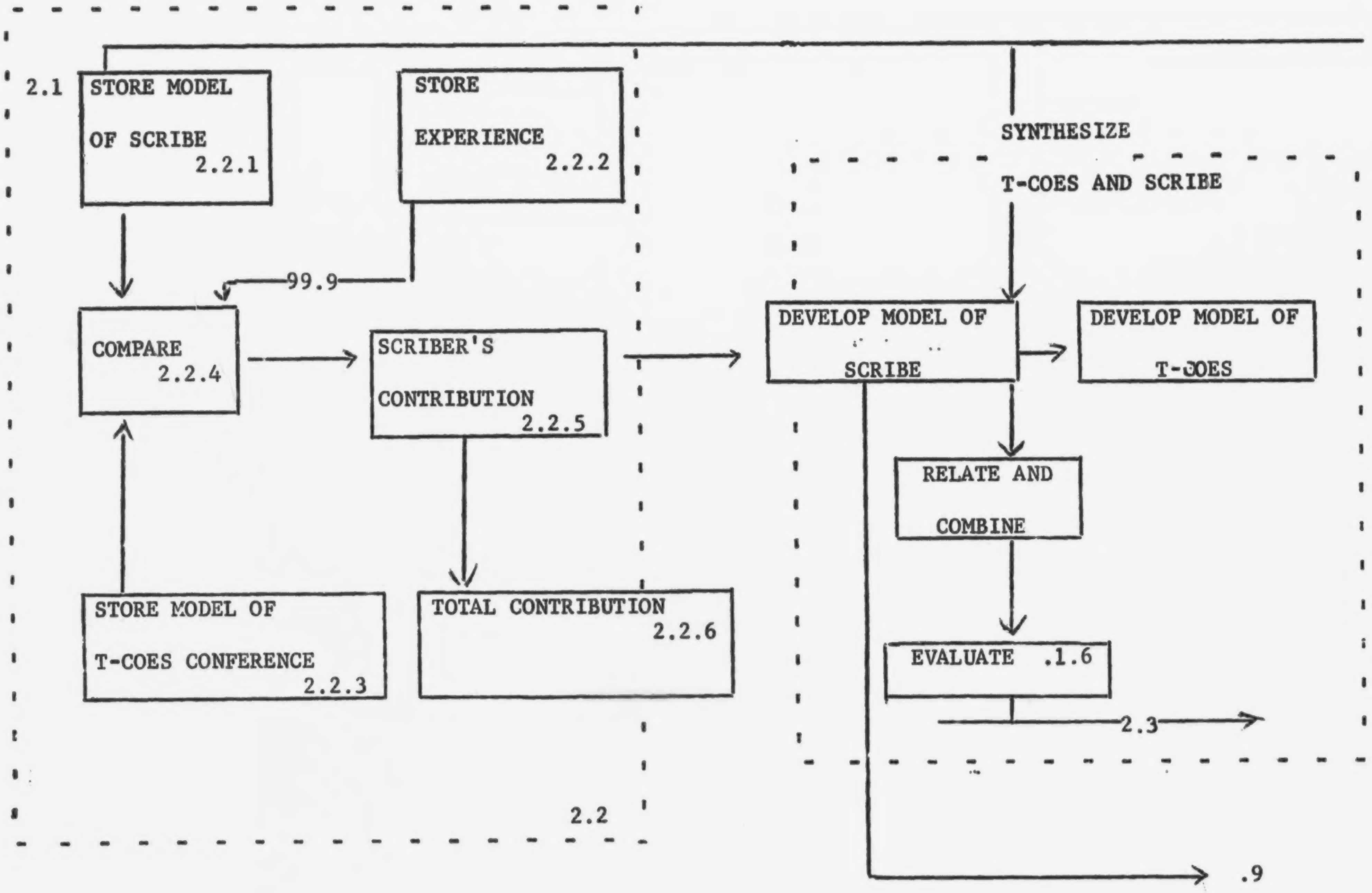
After the kick-off, we were divided into teams to discuss the education required in the following services: communication services, hospitality services, health services, business services, technology services, community and recreational and student movement, facility location and auxiliary consideration.

On August 7, our guest speaker was Mr. Mylecraine of Washington D.C. He discussed the education facility. His speech was centered around the idea of saving money. In outline form, the following topics indicated the methods: 1. Cost sharing. 2. Income production 3. Transient, and 4. Combined occupancy. Under combined occupancy, more people would become more involved. These things would include: 1. Coordinated decision making. 2. Creation of new real estate, income producing public property and new revenues. All of these items presented would allow for closer relationship between education facilities and other public and private services.

No longer can the school neglect the needs of the community. T-COES would rectify this by making the school and community one instead of two separate entities. The school and the community in the near future should reflect the aspirations of each other.

By. Mr. C. C. Scott

MODEL OF T-COES PARTICIPATION BY SCRIBE MEMBERS


2.1
STORE MODEL OF SCRIBE 2.2.1
STORE EXPERIENCE 2.2.2
99.9
COMPARE 2.2.4
SCRIBER'S CONTRIBUTION 2.2.5
STORE MODEL OF T-COES CONFERENCE 2.2.3
TOTAL CONTRIBUTION 2.2.6
2.2
SYNTHESIZE T-COES AND SCRIBE
DEVELOP MODEL OF SCRIBE
DEVELOP MODEL OF T-COES
RELATE AND COMBINE
EVALUATE .1.6
2.3
.9

COMPTON UNION HIGH SCHOOL DISTRICT

T-COES CONFERENCE

August 6, 7, and 8th, 1968

PROGRAM

Cockatoo Inn
11436 So. Hawthorne Blvd.
Hawthorne, California
679-2291

AUGUST 6, 1968
Tuesday

9:00	AM	Coffee
9:30	AM	Orientation Dr. John List - Greeting Lt. Manuel Correa Mr. John Graham
10:00	AM	Mr. Tom Zuck
10:15	AM	Dr. DeBernardis
11:00	AM	Consultants Meet in Room 414
12:00		LUNCH
1:00	PM	Group Meetings in Assigned Rooms
4:00	PM	Adjourn
4:30	PM	Consultants Seminar

AUGUST 7, 1968
Wednesday

9:30 AM	Group Meetings in Assigned Rooms
12:00	LUNCH
1:30 PM	Group Meetings in Assigned Rooms
4:00 PM	Adjourn
4:30 PM	Consultants Seminar

AUGUST 8, 1968
Thursday

9:30 AM	Group Meetings in Assigned Rooms
12:00	LUNCH
1:30 PM	Summary Session Dr. Walter Mylecraine

Final Reports To Be Turned
In By Team Leaders

COMPTON UNION HIGH SCHOOL DISTRICT

T-COES CONFERENCE
August 6, 7, and 8th, 1968

To All Participants:

This conference is a continuation and extension of a prior working conference held in March 1968. The purpose of the Conference was to identify curricular components, equipment, and facilities essential to a "Total Community Occupational Education System" (T-COES).

T-COES System

One of the primary purposes of this project is to develop a Total Community Education System. The design of this system will endeavor to bring together the many but fragmented local, state and national resources whose sole purpose or objective will be to provide a cooperative network of work experience, occupational training and retraining, job placement, and service to 100% of the high school population, and for those members of the adult community in need of assistance. In order to determine the coordination, and administrative structure of the activities and functions and T-COES, an operational analysis must be made of the basic framework.

High School

The Compton Union High School District, realizing it was not meeting the needs of the students, began revamping its curriculum and initiated an occupational program in September 1966 under the direction of the Director of Occupational Programming and Vocational Education Research. This was the initial stage of the T-COES concept. The District began to develop a new philosophy and plan for Vocational Education. The "Plan" and Vocational Education is as follows:

PLAN FOR VOCATIONAL EDUCATION

It is the philosophy of the Board of Trustees and the Superintendent of schools as indicated in the following guidelines. This program will be implemented by Board Policies in order to carry out these guidelines to the fullest extent:

1. The Comprehensive High Schools, rather than separate vocational and academic institutions, be the organizational institutions for occupational, entry-level, skill training.

2. Job-centered training be reserved for the eleventh and twelfth grades, rather than starting at the ninth grade.

3. Readily identifiable potential dropouts be admitted to skill centered programs at age of sixteen, irrespective of the grade level of the student.

4. The middle grades curriculum (seven and eight) include required exploratory career survey programs for all pupils.

5. Ninth and tenth grade Industrial Arts, Business Education, and Home Economics programs be exploratory in nature, leading to career selection in the eleventh grade.

6. Where appropriate, technical-centered training, be developed in the junior college (local) and articulated directly by the two Boards of Trustees and administrators.

7. All programs lead to expected high school graduation.

8. Cooperative and work experience programs become an integral part of this program.

9. Immediate, massive efforts be initiated in curriculum development to correlate basic education subjects, English, Math, and Science as they directly ralate to the student choice of occupational training.

10. Exploratory curriculum development be initiated to develop new programs in the "service" areas of entry-level employment skills for recreation, fine arts, communications, medical, horticulture-floriculture, and related subjects.

11. Efforts be initiated toward building and housing an in-service training program for occupational and related skills teachers and for all counselors and coordinators.

12. Information on these programs be made available to the public via all media.

13. Studies and plans be immediately implemented to modify and add facilities to house these programs in the existing junior and senior high schools.

14. Every effort be made to tap all financial resources--local, state, and federal--and the business community--to make these programs an immediate reality within the school system.

In a district such as Compton Union High School District, where so many students are below average in reading ability and underprivileged in cultural background, many teaching-learning approaches are necessary. To reach each individual child seems an insurmountable task; however, it is felt that, by the use of a variety of teaching methods and situations, more students will benefit than by the use of a strict book-learning approach.

Purpose:

The charge of this Conference is to continue and extend the work of the prior conference. The purpose of the Conference is to identify curricular components which will fulfill the goals established by the administration and Board of Trustees.

The curricular components should be analyzed in terms of the equipment and facilities which will be required to implement them.

As a means to focus on specific problem areas nine broad curriculum service categories have been established. They are:

1. Communication Services
2. Hospitality Services
3. Health Services
4. Business Services
5. Technology Services
6. Scientific Services
7. Professional Services
8. Community Services
9. Recreational Services

A tenth area is included in number one above. The communication services is studied in terms of both visual communications and the performing arts.

Each of the areas should be analyzed in terms of the broad informational content which should be included within the program, types and ranges of occupations which require or are enhanced by the information, and the types of equipment and facilities needed for an optimum teaching and learning environment.

Compton Plan:

The Compton Plan for education has been under development for approximately two years. It grew out of the recognition that the conventional system of education was not meeting the needs of a large segment of the community. This was borne out by a demographic study of the community which highlighted the large number who dropped out of school, the inordinate rate of employment, and the many other problems associated with a depressed community.

The Compton Plan is conceived as a means for bridging the artificial gap which separates the general and special educational responsibilities of public education. Curriculum programs are career oriented and designed to prepare the student with a salable skill upon completion of high school. However, the programs are based upon an interdisciplinary approach so they become "non-blocking" and the student is also prepared academically to enter the next level of education.

The interdisciplinary construct of curriculum has been demonstrated in a number of significant educational projects. It provides a means for demonstrating the value of the disciplines in a practical way. The program offer options and alternatives from which the student can choose if, through maturity or insight, his goals or interests change.

As background to the decision to implement a system-wide approach, a series of interdisciplinary programs have been established and are now functioning within the Compton School District. They include a food services program, horticulture and floriculture program, paramedical services program, and programs in seven of the technical fields. The success of these programs have convinced the Compton School Board to support this pattern of education for the total school system.

To fully implement the proposed change, it is recognized that a number of additional options must be established to meet the needs of the total school population. Further, the changes and proposed changes will have facility and equipment needs quite different from those which now exist.

Problem:

A new high school for the District has been approved. The planning of the facility must be completed in approximately sixty (60) days. Because of the recency of the Board support for the change in curriculum, the initial planning for the new high school did not include the conceptual change of the curriculum.

In order to avoid building a new school which will be obsolete before it is completed and require remodeling to implement the proposed curriculum change, it is essential that educational specifications be drafted immediately.

Guidelines for Educational Specifications--The Compton Concept:

The basic philosophy underlying the project can be symbolized in two words "imagination" and "flexibility". The challenge is for us to use all the human ingenuity at our disposal in developing the desired "21st century" educational research facilities. The total program must be studied before specific facility implications and space considerations can be made. The following two phase planning sequence will be reflected in the educational specifications:

Some Considerations for Phase I - General Planning

1. What are the areas of greatest difficulty in the present curriculum and instructional modes? What improvements, changes, or developments are most needed?

2. What are the most important trends and developments in the curriculum content of each subject field? What are the gaps that need to be filled?

3. What are the most important trends in the organization of instruction? How do they affect each subject area?

4. What are the most important trends and developments in the materials and tools of instruction? What plans should we make for their immediate or eventual incorporation into our programs?

5. What are the most important developments in the techniques of instruction? What research promises to influence methodology.

6. What goals should we adopt for the continuing contribution of each subject area to the development of adolescents in a changing world? How do these differ from our present goals? What are the implications for changes in our materials, our methods, our tools, our curriculum?

Some Considerations for Phase II - Facility Implications and Space Requirements

1. What do developments and changes in curriculum, materials, tools, and methods imply for the size, shape, and purpose of instructional space?

2. What do changes in the organization of instruction imply about the number and relationships of instructional spaces?

3. What do changes in the organization of instruction imply about the numbers of students who will use available spaces day by day and week by week?

4. What do developments in technology imply about the long range equipping of a classroom, its layout, utilization, power requirements, sound and light requirements?

In focusing not only on immediate educational problems but also on the problems which can be anticipated in the future, the following should be studied as they affect the educational program and facility design.

General Areas for Consideration

Curriculum Centers
Video Tape Selective Viewing
Study Carrels
Trasmission Center Development

TV - Open and Closed Circuit
Information Retrieval - EDP
Programmed Instruction
Tele-lecture System
Auto-Tutor Devices
Audio-visual Center
Computerized School Scheduling Systems
Automated Library and Reference Materials
Library and Reference Materials

Specifically, the following are generally developed sequentially and included in the educational specifications:

1. Philosophy and objectives of activities: a simple, concise and brief statement about the philosophy and objectives of the activities to be housed in the space under study.

2. Activities to be housed: what kinds of activities are to be performed in each space? Such a statement is very important because what happens in a space will affect the design. Form follows functions. Activities have been identified.

3. Persons to be accomodated: who will be accommodated in each space? This has been expressed in terms of number and types of people, e.g., staff, conferees, students.

4. Space requirements: what are the space requirements? This is not a precise statement of measurement, but rather a set of quantitative facts in terms of types and numbers of rooms and sizes of spaces. It has been desirable to state in approximate terms of square foot requirements.

5. Spatial relationships: what physical relationships will a particular unit of spaces (performing related activities) bear to other components and how will spaces within a unit relate to one another, (e.g., access, centralization, general utilization of materials and facilities)? Schematic diagrams show general and specific area relationships.

6. Equipment to be housed: what types and kinds of equipment will affect the design of the space? Rigid requirements and restrictions on size, layout, scale and brand names have been avoided.

7. Special environmental conditions: are there any environmental modifications (thermal, sonic, or visual) of the space that should be arranged to improve its utility?

Educational Specifications - Suggested Format

1. Introduction
2. Discernible Trends (Program goals)

3. Objectives of Specific Courses
4. Activities or Functions
5. Space Requirements
6. Orientation and Relationships
7. Traffic Flow
8. Furniture and Equipment
9. Storage

In each of the areas determine:

1. The broad informational content which should be included within the program;

2. Types, ranges, and levels of occupations which require or are enhanced by the specified content;

3. Furniture and equipment which will require space consideration;

4. Facilities which will be needed to house the programs and provide for an optimum learning and teaching environment.

It should be noted that the report of the first conference combined certain of the service areas for planning purposes. Each team should feel free to combine or reconstitute the service areas in other ways which appear to be more logical.

PRELIMINARY REPORT OF THE FACILITIES REQUIRED

Meetings Held:	Center for Technological Education 75 Southgate Avenue - Rm 17 Daly City, California
Date:	Febrary 19 and 20, 1968
Consultants:	William Plutte Winston Howe James Kelly

COMMUNITY OCCUPATIONAL EDUCATION SYSTEM

To insure a dynamic education program it is necessary for teacher and administrators to be involved in curriculum construction and implementation.

In the development of an interdisciplinary facility and curricula it is necessary to interrelate vertically and horizontally. Through modular and flexible scheduling it will be possible for students to enjoy many more disciplines and activities than is possible in the traditional curricula.

Further, the informational approach to education must be minimized. Students are not receptacles for enormous amounts of factual minutiae which they will later disgorge upon command. Learnings that come from needs will be meaningful and useful to students.

Should the learning center become a reality, part of the teacher retraining and curricula workshops must be directed at developing realistic methods for each of the occupational cluster areas.

The five programs reviewed are:

1. Communicative Arts
2. Public Services
3. Business Technology
4. Industrial Technology
5. Science and Humanities

It is imperative that curriculum designers keep in mind that these are not terminal programs but are ladders leading to further training and/or education. They are not planned to be vocationally terminal. However, if the curricula are well planned students will have saleable skills upon high school graduation.

The important ingredients to all five programs are the interaction, articulation, and immediacy of application of learning facets.

In discussing O-ES (overall educational specifications) we use the term "complex" for the total center and "cluster" for the facility housing one of the five tracks.

When reading these informal specifications keep in mind that they are guidelines patterned upon ideas garnered from the development of specific guidelines for an interdisciplinary facility.

Further, space sizes, physical arrangements, replication of similar spaces and many other facility specificities will be determined by size of school population and after other factors which are determined by the curricula development study group.

A thought to keep in mind is, not only will the curricular programs by modular, but the complex itself should be physically modular to be extremely flexible to change.

The buildings and spaces must be adaptable and flexible to program change as well as population change. Thoughts in planning must include traffic flow, pattern of restrooms and closets, number and types of auxiliary and service spaces.

COMMUNICATIVE ARTS

LEARNING SPACES REQUIRED TO IMPLEMENT A 500-STUDENT PROGRAM FOR A A COMMUNICATIVE ARTS CURRICULUM

(Visual Communication and Performing Arts)

1. Class-size spaces (30 students)

    1.1 Little Theater

    1.2 TV Studio

    1.3 Model and Set Shop

    1.4 Graphic Arts Studio

    1.5 Motion Picture Studio

    1.6 Art Studio

    1.7 Drafting Studio

    1.8 Projection Room

    1.9 Photographic Studio

    1.10 Radio Studio

        1.101 General classrooms as required to make a total of 20 learning spaces including science labs

        1.102 Studio Theaters (classroom size)

2. Special Rooms and Areas within this Cluster.

    2.1 Technicians Office--work space

    2.2 Green Room

    2.3 Faculty Workroom--duplicating center

    2.4 Film Storage

    2.5 Equipment Storage

    2.6 Satellite Library

    2.7 Satellite Administrative Offices

3. Special classroom spaces which may or may not be physically a part of the Communicative Arts cluster. (May be in the Core Area.)

3.1 Instrumental Music Room

3.2 Vocal Music Room

3.3 Music Library

3.4 Listening and Recording Room

4. Broad activities which should be supported by the above learning spaces include:

4.1 Kinds of Productions

4.11 Musical

4.12 Graphic

4.13 Dramatic

4.14 Journalistic

4.15 Photographic

(1) Still

(2) Cinematic

4.16 Television

4.17 Radio

4.18 Enrythmic

4.19 Forensic

4.20 Art

(1) Illustration

(2) Creative

4.2 Types of Productions

4.21 Creative/Experimental

4.22 Instructional (A-V Airs)

4.23 Documentary

4.24 Public Relations

4.25 Entertainment

4.26 Analytical (Sports-Motion Study)

4.27 Informational (Journalism)

4.28 Community Service

4.29 Cultural

PUBLIC AND PERSONAL SERVICES

LEARNING SPACES REQUIRED TO IMPLEMENT A 500-STUDENT PROGRAM FOR PUBLIC AND PERSONAL SERVICES

1. Class-size Spaces (30 students)
    - 1.1 Food Preparation Laboratory
    - 1.2 Food Planning Laboratory
    - 1.3 Cosmetic and Grooming Laboratory
    - 1.4 Fashion/Interior Design Studio
    - 1.5 Textiles Laboratory
    - 1.6 Related Science Laboratory
    - 1.7 Related Business Procedures Laboratory
    - 1.8 Landscaping Design Studies
    - 1.9 Graphics Laboratory
    - 1.10 Airplane Interior Mock-up
    - 1.11 Home Mechanics Laboratory
    - 1.12 Living and Working Environment Mock-up
    - 1.13 Hospital Mock-up
        - 1.131 Ward
        - 1.132 Laboratory
        - 1.133 Medical Preparation Center
    - 1.14 Landscape Practice Area
    - 1.15 Typing Room
    - 1.16 Satellite Library
    - 1.17 Additional Classroom Areas as Needed for a Total of 20 Classrooms.

2. Special Rooms and Areas within this Cluster.

    2.1 Laundry and Cleaning Laboratory

    2.2 Child Care Center

    2.3 Dental Facility Mock-up

    2.4 Medical Office Mock-up

3. Broad Activities which should be Supported by the Above.

    3.1 General Education

    3.2 Landscape Maintenance and Design

    3.3 First Aid

    3.4 Medical and Dental Office Practice

    3.5 Home and Family Life

    3.6 Personal Development

    3.7 Dental Assisting

    3.8 Medical Assisting

    3.9 Laboratory

    3.10 Airline Hostess

    3.11 Hotel-Motel Management

    3.12 Food Service Management

    3.13 Diet Planning

    3.14 Child Care

    3.15 Home Maintenance

    3.16 Professional Cleaning

    3.17 Home Decorating

    3.18 Culinary Work

BUSINESS TECHNOLOGY

THE FOLLOWING LEARNING SPACES WILL BE REQUIRED TO IMPLEMENT A 500-STUDENT PROGRAM IN BUSINESS TECHNOLOGY

1. Class Size Spaces

    1.1 Graphic Arts

    1.2 Duplication Center

    1.3 Data Processing

    1.4 Typing

    1.5 Office Procedures

        1.51 Record Keeping Stations for Machines

        1.52 Office Mock-up--for production of forms--equipped with typewriters and transcribing machines.

        1.53 Stations for Individual Typing and Study--Access to Tape-Audio Center

        1.54 Stations for Filing, Library Procedures, Data Processing Instruction

    1.6 Additional Classrooms Learning Spaces to make a Total of 20 Learning Spaces.

2. Special Rooms and Areas Located within this Cluster

    2.1 Satellite Library

    2.2 Audio-Visual Center

    2.3 Teachers Room-Duplication

    2.4 Storage

    2.5 Clean-up

    2.6 Satellite Administrative Offices

3. Spaces That May or May Not be in This Cluster
    3.1 Cafeteria
    3.2 Student Lounge
    3.3 Library
    3.4 Tape-Audio Center
    3.5 Computer
    3.6 Media Learning Laboratory
4. Activities
    4.1 Work Experience
        4.11 Within the Physical Complex
        4.12 With the Community
    4.2 Role Playing
    4.3 Vocational Practice

INDUSTRIAL TECHNOLOGY

LEARNING SPACES REQUIRED TO IMPLEMENT A 500-STUDENT PROGRAM FOR AN INDUSTRIAL TECHNOLOGY PROGRAM

1. Classroom Learning Spaces (30 students)
    - 1.1 Metal Machines Processes Area
    - 1.2 Sheet Metal Area
    - 1.3 Metrology Laboratory
    - 1.4 Glass and Ceramics Laboratory
    - 1.5 Plastics and Synthetics Laboratory
    - 1.6 Electronics Laboratory
    - 1.7 Bench Metal Area
    - 1.8 Classroom Learning Spaces as Required to Make a Total of 20 classrooms.
2. Special Rooms and Areas Within this Cluster
    - 2.1 Tools and Supply
    - 2.2 Electro-Chemical and Pilot Plant Area
    - 2.3 Presses Area
    - 2.4 Individual Laboratories (for 1-2 students)
    - 2.5 Seminar Rooms
    - 2.6 Carrels Area
    - 2.7 Satellite Library
    - 2.8 Teacher Resource Area/Faculty Workroom
    - 2.9 Satellite Administrative Offices
3. Spaces That May or May Not Be in this Cluster.
    - 3.1 Cafeteria
    - 3.2 Lounge-Student and Teacher

SCIENCE AND HUMANITIES
(Scientific and Professional)

This program is designed to prepare the academically able students for university entry. Traditionally, these students were exposed to almost pure abstract learning experiences, whereas this program will enhance more opportunities for experiential learnings.

1. Learning Spaces (will Contain 30 or More Students)

    1.1 Resource Centers (Students)

    1.2 Math Labs

    1.3 Science Labs

    1.4 Language Labs

    1.5 Media Center with Surrounding Classrooms

    1.6 Communications Classrooms with Self-Contained Libraries

    1.7 Humanities Classrooms with Self-Contained Libraries

2. Special Spaces Located within this Cluster

    2.1 Teacher Center (Resource Center & Offices)

    2.2 Small Conference Room

    2.3 Satellite Library

    2.4 Storage and Equipment Rooms

    2.5 Carrels Area

    2.6 Seminar Rooms

    2.7 Satellite Administrative Offices

3. Spaces That May or May Not Be in this Cluster.

    3.1 Cafeteria

    3.2 Lounge-Student and Teacher

    3.3 Large Team-Teaching Spaces

    3.4 Auditorium

4. Activities

The ingenuity and creativity of teachers will determine the scope of activities which may range from the pure abstract to pure experiential. With an interdisciplinary approach there has to be a retraining of teachers before the programs are put into effect. In too many instances the university prep students are looked upon as being human computers wherein tremendous amounts of information are stored. This program can afford more creative opportunities if the teachers will cooperatively plan.

4.1 Creative writing in communications, but centered on humanities units.

4.2 Using math time as supportive to science.

4.3 Units developed to generate discipline interactions, i.e., tie in communications and language in creating an international humanities unit.

4.4 Tutoring, horizontal and vertical.

4.5 Involvement with communicative arts program.

3.3 Large Team--Teaching Spaces

3.4 Auditorium

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CENTRAL CORE

The central core would contain the administrative offices, the student service areas, and many of those spaces which will be common to all areas.

1. Administrative Suite
    - 1.1 Director's Office
    - 1.2 Vice Director's Offices
    - 1.3 Deans' and Counselors' Offices
    - 1.4 Business Office
        - 1.41 Secretaries
        - 1.42 Receptionist
        - 1.43 Records and Attendance
            - 1.431 Provide For Fire Storage
2. Public and Teacher Services Area
    - 2.1 Conference Rooms
    - 2.2 Display and Waiting Area
    - 2.3 R. and D, Reference Library and Duplication Area for Staff
    - 2.4 Teachers Lounge and Retreat
    - 2.5 Theater-Auditorium
3. Student Learning Spaces
    - 3.1 Library
    - 3.2 Cafeteria (Combined with Food Services Program)
    - 3.3 Media Learning Laboratories
    - 3.4 Computer
    - 3.5 Tape-Audio-Visual (TV) Library and Reference

Summary

Presently, the materials developed by the Richmond consultants is being prepared for submission to the Stanford School Planning Laboratory. The Planning Laboratory will then prepare the final draft of the educational specifications for architectural preparation of the facility requirements.

A further meeting with the Richmond consultants is planned to complete the remaining curriculum areas.